DOCUMENT RESUME

ED 410 456 CE 074 648

TITLE	Medical-Surgical I. Teacher Edition.
INSTITUTION	Oklahoma State Dept. of Vocational and Technical Education, Stillwater. Curriculum and Instructional Materials Center.
PUB DATE	1993-00-00
NOTE	533p.; For other Practical Nursing courses, see ED 329 792, ED 380 619, ED 380 637, and CE 074 643-649. Printed on colored paper.
AVAILABLE FROM	Curriculum and Instructional Materials Center, Oklahoma Dept. of Vocational and Technical Education, 1500 West Seventh Avenue, Stillwater, OK 74074 (instructional package, 1 teacher and 10 student editions, order no. HO2038: $110; student edition, HO3038: $7).
PUB TYPE	Guides - Classroom - Teacher (052)
EDRS PRICE	EDRS Price MF2 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	Behavioral Objectives; Cancer; Competency Based Education; Curriculum Guides; Diseases; Learning Activities; *Medical Services; Nurses; *Nursing Education; Patients; Postsecondary Education; *Practical Nursing; State Curriculum Guides; Student Evaluation; Surgery; Teaching Guides; Units of Study

ABSTRACT

This publication is designed to provide students with the knowledge they need to pursue a career in medical-surgical nursing. Eight units are provided. Each instructional unit includes some or all of the basic components of a unit of instruction: performance objectives, suggested activities for the teacher, information sheets, job sheets, written tests, and answers to assignment sheets and written test. Most units of instruction are designed for use in more than one lesson or class period of instruction. Unit topics are as follows: applying basic principles of medical-surgical care; providing care for patients with community-acquired infectious diseases; providing care for patients with common medical-surgical complications; providing care for the oncology patient; providing care for the patient with pain; providing care for the postoperative patient; and providing care for the intraoperative and post-anesthesia recovery patient. Academic skills training is combined with vocational training throughout the instructional materials. To assist teachers in identifying activities that promote basic skills development, a marking system of simple graphic symbols, or icons, is used to denote which of the following nine general basic skill categories is being emphasized: reading, science, creative thinking/problem solving, writing, oral communication, employability, math, interpersonal skills, and social studies. (YLB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

Medical-Surgical I

ED 410 456

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL IN OTHER THAN PAPER COPY HAS BEEN GRANTED BY

D Frazer

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

CE074648

BEST COPY AVAILABLE

CIMC

Teacher Edition

Oklahoma Department of
Vocational and Technical Education
1500 West Seventh Avenue
Stillwater, OK 74074-4364

93-009988

HO-103

Medical-Surgical Nursing I

Developed by the
Curriculum and Instructional Materials Center
for the Division of
Oklahoma Department of Vocational and Technical Education

93-009988

HO 1038

Copyright 1993

Oklahoma Department of Vocational and Technical Education
Curriculum and Instructional Materials Center

All rights reserved.

Printed in the United States of America by the
Oklahoma Department of Vocational and Technical Education
Stillwater, Oklahoma 74074-4364

This publication, or parts thereof, may not be reproduced in any form by photographic, electrostatic, mechanical, or any other methods for any use including information storage and retrieval, without written permission from the publisher.

The Oklahoma Department of Vocational and Technical Education does not discriminate on the basis or race, creed, color, national origin, sex, age, veteran status, or qualified handicap.

MEDICAL-SURGICAL NURSING I

TABLE OF CONTENTS

Unit I Applying Basic Principles of Medical-Surgical Care

Unit II Providing Care for Patients with Community-Acquired Infectious Diseases

Unit III Providing Care for Patients with Common Medical-Surgical Complications

Unit IV Providing Care for the Oncology Patient

Unit V Providing Care for the Patient with Pain

Unit VI Providing Care for the Preoperative Patient

Unit VII Providing Care for the Intraoperative and Post-Anesthesia Recovery Patient

UNIT VIII Providing Care for the Postoperative Patient

FOREWORD

This publication is one of ten comprehensive courses from the Practical Nursing series of competency-based curricula developed by the Curriculum and Instructional Materials Center. It is designed to prepare students for employment by systematically guiding the student's learning activities from the simple to the complex.

A major challenge in the development of these materials has been to identify content and learning activities which will prepare health care practitioners who can function effectively in the rapidly changing health care industry. To meet this challenge, we have relied heavily upon the input and support of health care industry professionals.

The information found in each of the courses in the Practical Nursing series will help the instructor plan and implement a systematic learning process which will ensure student mastery of specific outcomes. Although we believe these publications do provide a systematic, functional curricula, instructors are encouraged to localize, individualize, and supplement these materials to meet specific student/client needs.

Roy Peters, Jr.
State Director
Oklahoma Department of Vocational
and Technical Education

Gail Pearson
State Supervisor
Health Occupations Education
Oklahoma Department of Vocational
and Technical Education

PREFACE

The goal of this publication is to provide students with the knowledge they need to pursue a career in medical-surgical nursing. Combined with practical, hands-on assignments, the information in this publication is intended to produce competent health care professionals.

A committee of health care industry professionals and educators was instrumental in identifying the skills and information needed by today's medical-surgical nurses. The committee members generously offered their time, talents, and nursing experience to create a competency-based learning package for nursing students. We believe that this package will guide students in their efforts to become providers of quality health care.

Connie S. Romans
Technical Writer
Curriculum and Instructional
Materials Center
Oklahoma Department of Vocational
and Technical Education

ACKNOWLEDGEMENTS

The Curriculum and Instructional Materials Center (CIMC) extends its appreciation to those individuals who played important roles in the development of *Medical-Surgical Nursing I*.

A generous thank you is extended to the professional individuals who served on the *Medical-Surgical Nursing I* curriculum task analysis and validation committees. Their contributions of time, talent, and knowledge in determining the content of this publication are greatly appreciated.

Rosemary Helderle, LPN
Staff nurse, Medical-Surgical
Deaconess Hospital
Oklahoma City, OK

Karolyn Holden, RN, BSN
Staff nurse, ICU
Presbyterian HCA Hospital
Oklahoma City, OK

Andrea Kreis, RN
Staff nurse, Medical-Surgical
Pontotoc County Skill Development Center
Ada, OK

Joyce South, LPN
Surgery Specialist
Memorial Hospital of Southern Oklahoma
Ardmore, OK

Pat Walker, LPN, CST
Staff nurse, Surgery
Valley View Regional Hospital
Ada, OK

Thank you is also extended to the vocational educators who served on the *Medical-Surgical Nursing I* curriculum committees. Their expert input on vocational instructional methods is greatly appreciated.

Kathy Coberley, RN, BSN
Practical Nursing Instructor
Pontotoc County Skill Development Center/Valley View Hospital
Ada, OK

Note: Kathy also served as technical advisor for Medical-Surgical Nursing I.

Rita Corbin, RN, BSN
Nursing Education Instructor
St. Francis Hospital
Tulsa, OK

Joan Dunlap, BSN, RN
Clinical Instructor
St. Francis Hospital
Tulsa, OK

Dr. Lou Ebrite, Ph.D.
Health Occupations Teacher Educator
University of Central Oklahoma
Edmond, OK

Kathryn Jackson, BSN
Director, Practical Nursing
Great Plains Vo-Tech
Lawton, OK

Jeanne Tomkins, RN, MS
Clinical Instructor
St. Francis Hospital
Tulsa, OK

Melva Whitlock, RN
Coordinator, Practical Nursing
Indian Meridian Vo-Tech
Stillwater, OK

We also thank the State Director, Dr. Roy Peters, Jr., and Assistant State Director, Dr. Charles O. Hopkins, for their continued support throughout this project.

Oklahoma Department of Vocational and Technical Health Occupations Education staff who provided leadership and direction on this project also deserve special recognition.

Gail Pearson, RN, M.Ed. State Supervisor Health Occupations Education	Jennifer Phillips, RN Assistant State Supervisor Health Occupations Education

Special recognition goes to the writers of *Medical-Surgical Nursing I* for their dedicated efforts.

- Charles Kemnitz, Ph.D.; Atlatl Communications
  "Applying Basic Principles of Medical-Surgical Care"
  "Providing Care For Patients with Community-Acquired Infectious Diseases"
  "Providing Care for Patients with Common Medical-Surgical Complications"

- Gayla Turner, RN, BSN; Pontotoc County AVTS
  "Providing Care for the Oncology Patient"
  "Providing Care for the Patient with Pain"

- Kathy Coberley, RN, BSN; Pontotoc County AVTS
  "Providing Care for the Preoperative Patient"
  "Providing Care for the Intraoperative and Post-Anesthesia Recovery Patient"
  "Providing Care for the Postoperative Patient"

Only through the close cooperation of the Curriculum and Instructional Materials Center staff was this curriculum developed. Sincere thanks is shared with the CIMC coordinators.

John Friedemann
CIMC Coordinator

Lynna Ausburn, Ph.D.
Development Coordinator

Rusty Muns
Electronic Media Development Coordinator

Kathleen Kincaid
Resale Coordinator

Darrell Stiles
Warehouse Coordinator

Special appreciation is offered to the numerous other individuals who functioned in supportive roles throughout the development of the *Medical-Surgical Nursing I* curriculum, including Terri Tomson, CIMC secretary, and word processing staff members Charlotte Tarkington and Brenna Tillman.

Special recognition and thanks are also extended to other individuals within the Oklahoma Department of Vocational and Technical Education involved in the development process: Kate Northcutt for the cover design; Bob Davis and the artists in the ODVTE Art Department for the illustrations in the book; and Noel Wilcoxson, Danny Darrow and Diane Ensign at the ODVTE Print Shop. Thank you also to contractor Michael Wilson for his word processing and formatting efforts.

Finally, a big thank you to all the other technical writers and curriculum development specialists who offered both their technical and moral support during this project.

Connie S. Romans
Technical Writer
Curriculum and Instructional Materials Center
Oklahoma Department of Vocational and Technical Education

Sherry Wietelman, M.S.
Curriculum Development Specialist
Curriculum and Instructional Materials Center
Oklahoma Department of Vocational and Technical Education

USE OF THIS PUBLICATION

INSTRUCTIONAL UNIT

Medical-Surgical Nursing I contains ten units. Each instructional unit includes some or all of the basic components of a unit of instruction: performance objectives, suggested activities for the teacher, information sheets, job sheets, written tests, and answers to assignment sheets and written test, all of which are included in the instructor's edition. The student workbook includes the objective sheets, information sheets, supplements, assignment sheets, and job sheets. Written tests may be duplicated for classroom use or *additional copies* may be purchased by calling 1-800-654-4502 or, in Oklahoma, 1-800-522-5810, ext. 589.

All of the unit components tie into measurable and observable learning outcomes. Instructors are encouraged to supplement these components with other resources in order to make them as responsive to local conditions and individual needs as possible.

Most units of instruction are designed for use in more than one lesson or class period of instruction. Careful study of each unit of instruction by the instructor will help him or her determine the following:

- Amount of material that can be covered in each class period.
- Skills that must be demonstrated.
  - Supplies and equipment needed
  - Amount of class time needed for demonstrations
  - Amount of time needed for student practice
- Supplementary materials, including print and non-print media, that must be ordered.
- Resource people who must be contacted.

Objective Sheet (White Pages)

Each unit of instruction is based on the performance needed for successful employment in an occupational area. Performance objectives are stated in two forms: unit and specific objectives. The unit objective states the overall goal of the unit. It tells what the student should be able to do and what standard will be used to see whether the student can do it. Specific objectives outline the teaching sequence of the competencies required to meet the unit objective.

The objectives should be provided for students and stressed throughout the teaching/learning process. This will help answer any questions concerning performance requirements for each instructional unit. The objectives can also help determine teaching strategies and instructional methods. Instructors should prepare for each unit by deciding how each objective could be best taught.

Instructors should feel free to modify, delete, or add objectives in order to meet the needs of the students and community. When objectives are added, the instructor should remember to supply the needed information, assignment and/or job sheets, and criterion-referenced test items.

Suggested Activities (Pink Pages) – **Instructor's Edition only**

The suggested activities page assists the instructor during the preparation stage of the teaching/learning process by providing suggestions for delivery, application, and evaluation during the instructional process. The instructor should read the suggested activities prior to introducing the unit to allow time to obtain supplemental materials, prepare audiovisual materials, and contact outside resources. Duties of the instructor will vary according to the particular unit.

References used in the development of each unit are listed in the "Suggested Resources" section, along with print and non-print media that may be used to teach the unit. These materials can be used by the instructor to supplement his or her knowledge of the subject area or to help students with particular interests or occupational objectives in the area covered.

Information Sheets (Green Pages)

The information sheet provides "must know" content essential for meeting the cognitive objectives stated at the beginning of each unit. It serves as an excellent guide for presenting background knowledge necessary to develop the skills specified in the unit objective.

Students should read the information sheet before it is discussed in class. Space is provided in margins for students and instructors to add notes that clarify and/or expand on the information provided.

The information sheet may include notes, cautions, or warnings. These should be discussed carefully and thoroughly. **Notes** are short verbal additions to the information sheet or procedural outline that provide nice-to-know and decision-making information. A note may tell the student what to watch for or to consider at a given step. It may explain when a step may not be applicable. Notes offer guidance that may help the student understand the process and do it more efficiently. **Cautions** are advisories that tell the student how to avoid causing minor personal injury or equipment damage. **Warnings** are advisories to the student used to avoid serious personal injury or death to the student, persons in the workplace, or users of the project or the procedure.

Student Supplement (Green Pages)

Student supplements include instructions that could be used for solving problems or reinforcing the enrichment of learning. The information presented in a student supplement may consist of tables, charts, written information, forms, or other information students will need in order to complete one or more of the assignment or job sheets. While supplements are not tested over directly, they may be used to assist in meeting the performance objectives.

Transparency Masters (White Pages) - **Instructor's Edition only**

Transparency masters provide information in a special way. The students may see as well as hear the materials being presented, thus reinforcing the learning process. Transparencies may present new information or they may reinforce information presented in the information or assignment sheets.

Transparencies should be made and placed in the notebook where they will be immediately available for use. Transparencies direct the class's attention to the topic of discussion. They should be left on the screen only when topics shown are under discussion.

Instructional Supplements (Pink Pages) — **Instructor's Edition only**

Instructional Supplements provide suggestions for teaching the basic skills included in each assignment sheet or job sheet. They are located directly in front of the components they support–assignment or job sheets–in each unit.

Assignment Sheets (Tan Pages)

Assignment sheets provide students with information and exercises that address learning levels at or above the application level of Bloom's taxonomy. Assignment sheets provide written exercises for instruction and practice of a specific objective. The introduction to the assignment sheet explains how the assignment sheet relates to the subject area and unit objectives and may provide instructional information or refer students to another component for such information.

Assignment Sheet Answers (Pink Pages) – **Instructor's Edition only**

This component is designed to assist the instructor in evaluating student performance on assignment sheets.

Job Sheet/Skill Test Record (Blue Pages)

Job Sheets are step-by-step procedures for performing occupational (psychomotor) tasks. They may have a brief introduction if necessary for clarification or safety. The Skills Test, a series of check-off steps and overall competency indicator, is combined with the Job Sheets. The check-off list allows instructors to evaluate a student's process performance of the task on the Job Sheet. The overall competency indicator allows the instructor to evaluate the end product. Every unit must have at least one Assignment Sheet or Job Sheet.

Written Test (Yellow Pages) – **Instructor's Edition only**

This component provides criterion-referenced evaluation of every objective listed in the unit of instruction. If objectives have been added, deleted, or modified, appropriate changes should be made on the test.

In order to measure and document student competency gains as required by the latest Carl Perkins regulations, and as outlined in the Oklahoma-developed system of standards and measures, it is absolutely essential that the same test be used as a pretest and as a posttest. If you choose to use tests other than the ones included herein, be sure that the same instrument is used for each activity–pre- and post test.

A detailed explanation of the Oklahoma plan for standards and measures and the Carl Perkins requirements is included in the CIMC publication, *Measuring Learning & Competency Gain: The Pretest/Posttest Approach*. This booklet and accompanying software designed to assist in calculating and recording student gains are available to all vocational teachers through the school's vocational testing liaison.

To further assist vocational teachers, the CIMC is in the process of developing test code sheets for each written test in its more recent publications, including this one. These code sheets are explained in Section 8 of the publication mentioned above, and will greatly assist in verifying that the test is a valid instrument for measuring student learning and competency gains. As the test code sheets for programs become available, they will be forwarded to teachers of each program; further publications will include the test code sheets.

Written Test Answers (Pink Pages) – **Instructor's Edition only**

This component is designed to assist the instructor in evaluating student performance on written tests.

Answers to Assignment Sheets and Written Tests (pink pages) – **Instructor's Edition only**

These components are designed to assist the instructor in evaluation of student performance. They are available in the teacher's edition only.

COMPETENCY PROFILES

A competency profile is available from CIMC Resale for each publication. Competency profiles document student performance. The profile contains a list of the specific job competencies that a student should achieve before leaving the training program.

BASIC SKILLS IN CURRICULUM

Since its inception in 1969, the Curriculum and Instructional Materials Center (CIMC) of the Oklahoma Department of Vocational and Technical Education has provided quality, competency-based instructional materials for vocational training programs. During this time, the CIMC has been mindful of the importance of reinforcement (and sometimes remediation) of students' academic skills as they progress through vocational training, and has always included activities in its materials to enhance and promote use of these skills.

In response to changing job requirements, federal and state legislatures are enacting laws setting stringent basic skills requirements for nonvocational **and** vocational education. State legislatures are increasing basic skills accountability for teachers and school administrators. The recently enacted Carl D. Perkins Vocational and Applied Technology Education Act Amendments of 1990 (P.L. 101-392) mandates academic skills development in vocational training. In addition, business and industry are delivering the message clearly to educators that vocational competence now requires increased strength in the basic skills.

As noted earlier, it is not new for CIMC materials to contain information and activities that develop basic skills competencies in students taking vocational training. What **is** new is the documentation or flagging of basic skills in CIMC materials, and further enhancement of basic skills activities. To accomplish this, the CIMC has developed a "Five Point Approach to the Integration of Basic Skills into the Curriculum." Following is a brief description of this process.

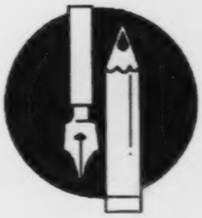
I. Basic Skills Icons

To assist teachers and students in identifying activities that promote basic skills development, the CIMC has implemented a marking system that uses simple graphic symbols, or icons, to denote which of nine general basic skill categories is being emphasized. These icons are located in the left margins of assignment, activity, and job sheets. The nine basic skill areas are as follows:

Reading Skills

The activities identified by this icon deal specifically with developing reading skills in an applied, job-related context. These range from general information-gathering activities to tasks requiring use of specific technical reference materials.

Writing Skills



Tasks identified with this icon promote development of skills in written communication ranging in complexity from filling out forms to the written expression of ideas and concepts related to vocational exploration or performance.

Mathematics Skills

This icon identifies activities that develop vocationally related skills in computation; measurement and estimation; selection and application of appropriate mathematical process; and collecting, displaying, or interpreting data.

Science Skills

The science icon marks activities that are related to the development of skills in either the physical or biological sciences. These skills stress occupationally related applications of science and technology.

Oral Communication Skills

This icon identifies activities that promote development of effective speaking and listening skills. They include practice in such areas as speaking techniques, word choice, nonverbal messages, use of communication media, and using active listening techniques.

Interpersonal or Relating Skills

Activities that deal directly with skills in relating to others are marked with this icon. This includes areas such as group processes and dynamics, negotiation, dealing with conflict, and leadership/motivation.

Creative Thinking and Problem Solving Skills

This icon identifies activities that stress development of higher-order thought processes such as problem identification and analysis, lateral thinking, evaluating alternatives/outcomes, and developing solutions.

Employability Skills

Activities marked with this icon relate to competencies required to obtain employment and develop a career. These competencies include specific occupational tasks and more general items such as career planning, job search, business etiquette, and maturing in one's work environment.

Social Studies Skills

This icon is used to identify activities that stress competencies in fields relating to human society and its distribution and relationships. This includes all the social sciences such as history, economics, geography, demographics, current events, cross-cultural studies, consumer issues, environmental issues, and ethical concerns in science and technology.

Some activities in the CIMC materials develop skills in more than one of the nine basic skill areas. In cases where the relative strengths of the skill elements are clearly discernable, the icon used is the one judged to be the primary, or the most heavily emphasized, activity. When there is no clear-cut difference between importance of skill area, multiple icons are used.

II. Enablers

Once the **general** basic skill activity has been identified by an icon, the CIMC takes the process one step further by indicating the **specific** skills that are addressed in an activity. This is accomplished by using enabling skills, or "enablers."

Lists of enablers, or specific skills required for each activity, have been developed at CIMC for each of the nine basic skills areas. The enablers have been grouped into sets of related skills under each icon. The list of general skill categories under each icon is as follows:

Reading Comprehension Skills
Research and Reference Skills
Functional Reading Skills

Language Skills
Composition Skills
Research Skills
Functional Writing Skills

Operation and Calculation Skills
Math Application Skills
Data Analysis and Display Skills
Functional Math Skills

General Science Skills
Life Science Skills
Physical Science Skills
Earth Science Skills

Oral Presentation Skills
Listening Skills
Interactive Communication Skills

General Relating Skills
Teamwork/Cooperative Skills
Leadership/Influencing Skills

Enablers
Cognitive Activities Skills

Job Search/Selection Skills
Job Acquisition/Development Skills

Information Analysis Skills
Social Studies Application Skills
Functional Social Studies Skills

Applicable enablers, grouped under their general categories, are listed beneath each icon in the left-hand margin of the activity, assignment, and job sheets. For example, an exercise that requires a student to conduct library research would make necessary the use of specific reading comprehension and research and references skills. The basic skills that the exercise is promoting would be depicted in the margin as follows:

Reading
Comprehension Skills
- Gain information

Research and
Reference Skills
- Select useful resources
- Find materials in library

[Text]

CORRECTIONS AND SUGGESTIONS

The Curriculum and Instructional Materials Center (CIMC) wants to provide vocational instructors and students with materials that are accurate and effective. Although the CIMC strives to maintain the highest standards of development and production, oversights occasionally do occur. If you find any errors in this or other CIMC publications, or have suggestions for improving their usefulness in vocational programs, please notify the CIMC staff. One easy way of pointing out errors is to make a photocopy of the affected page and to indicate the correction on the copy. Mail this information to the CIMC, where it will be used to correct the publication before the materials are reprinted.

To ensure that the material is updated on a timely basis, notify the CIMC of necessary corrections as soon as possible after discovering the error. Do not assume that someone else will notice the error and inform the CIMC; other users may be making the same assumption. Please send corrections and recommendations for improving this publication to the following address:

Coordinator of Development
Curriculum and Instructional Materials Center
Oklahoma Department of Vocational and
Technical Education
1500 West Seventh Avenue
Stillwater, Oklahoma 74074-4364

For a free catalog, a list of new publications, or other instructional materials information call 1-800-522-5810, extension 589.

RESALE

OBJECTIVE SHEET

APPLYING BASIC PRINCIPLES OF MEDICAL-SURGICAL CARE

I

INTRODUCTION

Nursing not only provides care for the healthy and the ill, but also prevents illness and promotes health. To help people achieve maximum possible health, nurses need to understand the concept of health and illness so that they can provide patients with appropriate nursing interventions.

UNIT OBJECTIVE

After completing this unit, the student will understand the concept of health and illness, as well as the basic techniques of medical-surgical care. The student will demonstrate these competencies by completing the assignment sheet and written test with a minimum of 85 percent accuracy.

PREREQUISITES

Body Structure and Function
Nursing Principles and Skills
Nursing Concepts
Nutrition

SPECIFIC OBJECTIVES

After completing this unit, the student will be able to:

1. Match terms associated with concepts of health/illness and medical-surgical care to their correct definitions.
2. Select true statements about health and the wellness-illness continuum.
3. Select ways in which high-level wellness can be promoted.
4. List human responses to illness.
5. Match characteristics of illness to their correct stages.
6. Describe nursing interventions to help patients adapt to illness.
7. Match common examples of diseases and disorders to their classifications.
8. Select true statements about fluid and electrolyte balance.
9. Distinguish between fluid volume deficit and fluid volume excess.
10. Discuss factors that affect health maintenance.

11. Match nursing responsibilities for medical-surgical patients to steps in the nursing process.

12. Assess fluid and electrolyte balance. (Assignment Sheet)

APPLYING BASIC PRINCIPLES OF MEDICAL-SURGICAL CARE

PREPARATION

- Review the unit and plan your presentation.
- Determine the scope and sequence of objectives you add. Design and develop support materials, including evaluation techniques for additional objectives.
- Review teaching suggestions and plan classroom activities.
- Determine how you will schedule time for students to demonstrate competence in the required procedures.
- Order materials to supplement the unit.
- Order films and videos.
- Invite a guest speaker to discuss medical-surgical care.

  NOTE: Please provide the guest speaker with the specific topic relevant to the unit of instruction ahead of time. You may want to supply the objective sheet, information sheet, and any other components you want the speaker to cover. Confirm the scheduled appearance two to three days prior to the presentation.
- Arrange for students to visit a local hospital.
- Make transparencies.
- **HOSA** Integration
  - Assist students in conducting a chapter service project on the importance of medical-surgical care.
  - Develop objectives for the service project and identify a theme.
  - Have students prepare a three-minute speech on a specific topic of medical-surgical care and present before the class using the HOSA guidelines for public speaking.
  - Create a poster according to Extemporaneous Health Display rules. Display in highly visible areas.
  - Plan community or school health projects that involve disseminating pamphlets about medical-surgical care.

DELIVERY

- Discuss unit and specific objectives.
- Encourage students to use computer software, if computers are available.
- Devise games and/or crossword puzzles to reinforce terms.

Objective 1: Match terms associated with concepts of health/illness and medical-surgical care to their correct definitions.

- Discuss terms associated with health and illness.
- Have students play reinforcement games and work crossword puzzles using terms.

Objective 2: Select true statements about health and the wellness-illness continuum.

- Discuss the concept of health and the wellness-illness continuum.
- Have students give their definitions of health.
- Show *Behavioral Responses to Illness.*

Objective 3: Select ways in which high-level wellness can be promoted.

- Discuss the ways in which high-level wellness can be promoted.
- Have students tell ways to achieve high-level wellness.
- Show *Improving Client Response to Health Care.*

Objective 4: List human responses to illness.

- Describe human responses to illness.
- Have students tell how they respond to illness.
- Show *Stress: A Fact of Life* and *Stress: A Nursing Concern.*

Objective 5: Match characteristics of illness to their correct stages.

- Distinguish among different stages of illness.
- Have students tell characteristics of stages of illness.

Objective 6: Describe nursing interventions to help patients adapt to illness.

- Discuss adaption to illness.
- Discuss ways to help patients adapt to illness.

Objective 7: Match common examples of diseases and disorders to their classifications.

- Discuss different categories of diseases.
- Have students give examples of different categories of diseases.

Objective 8: Select true statements about fluid and electrolyte balance.

- Discuss the importance of fluid and electrolyte balance.
- Have students find case studies of patients with fluid and electrolyte imbalance.
- Show *Fluids and Electrolytes*.

Objective 9: Distinguish between fluid volume deficit and fluid volume excess.

- Distinguish between fluid volume deficit and excess.
- Discuss how to assess fluid volume disturbances.

Objective 10: Discuss factors that affect health maintenance.

- Have students discuss different health risk factors and the ways to alleviate them.
- Have students gather brochures about health promotion and maintenance.
- Show *Stress Reduction Factors That Really Work.*

Objective 11: Match nursing responsibilites for medical-surgical patients to steps in the nursing process.

- Discuss the concepts of medical-surgical nursing.
- Have students tell the goals they intend to achieve in their profession.

APPLICATION

Objective 12: Assess fluid and electrolyte balance.

- Have students complete assignment sheet to assess fluid and electrolyte imbalance.

EVALUATION

Pretest

- Give written test as pretest.
- Determine individual study requirements from pretest results.
- Counsel students individually on pretest results and study requirements.
- Modify materials in unit or create supplementary materials for individual students as required.

Written Test

- Explain to students that they will be asked to demonstrate on the written test actions listed in the specific objectives.
- Evaluate students on assignment sheet activities if not previously done.
- Give the written test.

  NOTE: The written test may be given in sections if desired.

- Reteach and retest if necessary.
- Complete the appropriate section of competency profiles.
- Review individual and group performance in order to evaluate teaching methods. Adjust scope, sequence, or instructional approaches for additional lessons as required.

SUGGESTED RESOURCES

Electronic Media

- *Behavioral Responses to Illness* (VHS, 21 min.)
- *Developing a Caring Relationship* (VHS, 25 min.)
- *Diagnostic Strategies* (VHS, 18 min.)
- *Folk Health Practices: Illness* (VHS, 28 min.)
- *Improving Client Response to Health Care* (VHS, 24 min.)

- *Nursing Process* (VHS, 17 min.)

- *Practical Application, Parts I and II* (VHS, 19 min. each)

- *Stress: A Fact of Life* (VHS, 19 min.)

- *Stress: A Nursing Concern* (VHS, 24 min.)

- *The What & Why of Nursing Diagnosis* (VHS, 14 min.)

The above videos are available from:

Concept Media
P.O. Box 19542, Irvine, CA 92713
(800) 233-7078

- *Fluids and Electrolytes* (8 VHS videos)

- *Stress Reduction Strategies That Really Work* (VHS, 30 min.)

- *Vitamins & Nutrition* (VHS, 30 min.)

The above videos are available from:

National Innovative Media Co.
Route #2, Box 301B
Calhoun, KY 42327
(800) 962-6662

Print Media

- Brunner, Lillian Sholtis and Doris Smith Suddarth. *Textbook of Medical-Surgical Nursing* (6th ed.). J. B. Lippincott Co.: Philadelphia, 1988.

- Edleman, Mandle. *Health Promotion Throughout the Life Span.* Mosby: St. Louis, MO, 1990.

- Edlin, Gordon and Eric Golanty. *Health and Wellness* (3rd ed.). Jones and Bartlett: Boston, 1988.

- Kemp, Brenda. *Fundamentals of Nursing: A Framework for Practice* (2nd ed.). Scott, Foresman: Glenview, IL, 1989.

- Stone, George C. *Health Psychology: A Handbook.* Jossey-Bass: San Francisco, 1992.

UNIT REFERENCES

Print Media

- Brunner, Lillian Sholtis and Doris Smith Suddarth. *Textbook of Medical-Surgical Nursing* (6th ed.). J. B. Lippincott Co.: Philadelphia, 1988.
- Edleman, Mandle. *Health Promotion Throughout the Life Span*. Mosby: St. Louis, MO, 1990.
- Edlin, Gordon and Eric Golanty. *Health and Wellness* (3rd ed.). Jones and Bartlett: Boston, 1988.
- Kemp, Brenda. *Fundamentals of Nursing: A Framework for Practice* (2nd ed.). Scott, Foresman: Glenview, IL, 1989.
- Stone, George C. *Health Psychology: A Handbook*. Jossey-Bass: San Francisco, 1992.

INFORMATION SHEET

APPLYING BASIC PRINCIPLES OF MEDICAL-SURGICAL CARE

I

OBJECTIVE 1

Match terms associated with concepts of health/illness and medical-surgical care to their correct definitions.

- **adaption** – the body's adjustment to varying circumstances and conditions
- **body image** – the way one perceives his or her physical attributes
- **electrolyte** – substance capable of breaking into ions when dissolved in solution
- **extracellular fluid** – fluid outside the cells
- **health care** – services offered by various health disciplines
- **high-level wellness** – functioning to the maximum ability within one's environment
- **holistic health care** – health care that takes into account the whole person in the environment in the prevention and treatment of disease
- **homeostasis** – maintenance of uniformity, stability, and constancy within the body
- **intracellular fluid** – fluid within the cells
- **nursing diagnosis** – the patient's actual or potential health problems and needs to be identified and acted upon by nurses
- **nursing goals** – patient outcomes expected after receiving nursing intervention
- **patient outcomes** – expected responses after planned nursing interventions
- **plan of care** – guide to help nurses implement appropriate nursing care according to the nursing diagnosis
- **self-image** – the way one perceives oneself
- **stage of acceptance** – the period in which the person tends to accept that he or she is ill
- **stage of convalescence** – the period of recovery following illness
- **stage of transition** – change from wellness to illness

OBJECTIVE 2

Select true statements about health and the wellness-illness continuum.

Health has a variety of definitions. A widely used definition is that of the World Health Organization:

"Health is the state of complete physical, mental, and social well being, not merely the absence of disease or infirmity."

In other words, health is a balance of physical, mental, and social needs.

Wellness-Illness Continuum

An effort to achieve the highest degree of health is called "high-level wellness," a phrase coined by Halbert L. Dunn.

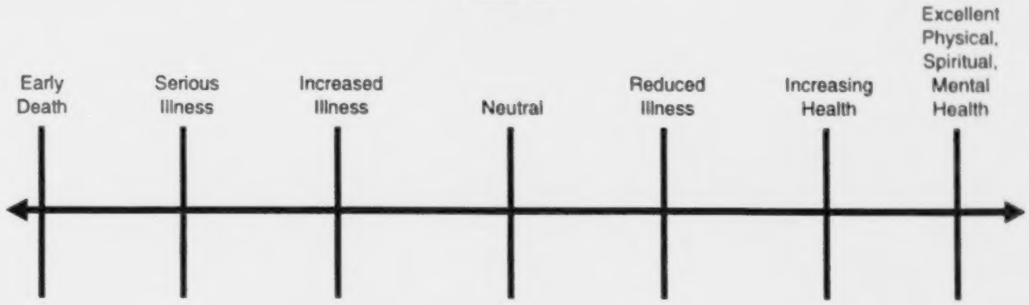
For example, some people can attain high-level wellness even if they are physically handicapped. They can adapt their way of doing things so they function at their greatest capacity.

People with a chronic illness can attain a high level of wellness if they succeed in meeting their health potential within the limits of the chronic illness.

Even aging requires an ever-expanding challenge to live at a fuller potential and to continue maturation of the individual at increasingly higher levels throughout one's life.

Halbert L. Dunn puts forward the concept of the health-illness continuum. When people cope and function effectively in daily living, they are within the health spectrum; however, when the body fails, they fall into the illness spectrum.

FIGURE 1



WELLNESS-ILLNESS CONTINUUM

The wellness-illness continuum regards a person as having neither complete health nor complete illness. Instead, a person's health status is in constant change, ranging from extreme wellness to extreme illness or death. In other words, a person has certain degrees of both wellness and illness at the same time.

Dunn provides the nurse a methodology which helps focus attention on the patient's positive health practices and characteristics, while accounting for the patient's illness or potential for illness.

The wellness-illness continuum suggests that an individual is considered a being in interaction with his or her internal and external environments.

The nurse's primary function is to help patients use their attributes to attain and maintain the highest level of wellness possible within the patients physical and psycho-social limitations.

OBJECTIVE 3 **Select ways in which high-level wellness can be promoted.**

High-level wellness can be promoted by the following:

- Improving living conditions of family and community.
- Assisting individuals and families in application of knowledge to promote health.
- Promoting good human relations.
- Enhancing opportunities for creative expression.
- Understanding the concept of maturity and methods of its promotion as a realistic goal.
- Improving the quality of life for the maturing population.

Wellness is not only the absence of illness, but also a lifelong challenge to function at a fuller potential.

OBJECTIVE 4 **List human responses to illness.**

When a person is ill, he or she has a variety of physical and mental responses to illness:

- Impaired functioning in rest, sleep, ventilation, circulation, activity, nutrition, elimination, skin, and sexuality
- Pain and discomfort
- Mental disorientation
- Inability to make decisions
- Self-image changes required by health status
- Fear

  Patients may experience fear because they anticipate harm, unpleasantness, or uncertainties. Some patients may express their feelings freely. A nurse needs to understand how they feel and try to alleviate their fear.
- Anxiety

  Anxiety is a feeling of apprehension and a common response to stress. Patients with anxiety may feel helpless and unsure concerning appropriate actions to take.

An anxious patient may experience fatigue, insomnia, diarrhea, urgency of voiding, nausea, anorexia, and excessive perspiration.

- Feelings of helplessness

  Helplessness means a feeling of loss of control. During periods of illness, a patient may rely heavily on help from others.

- Anger

  Anger is an emotion associated with frustration and struggling with a threatening or unpleasant situation. Some patients may become angry because illness prevents them from carrying out their normal activities.

  The nurse should understand a patient's anger and not take it personally. The nurse should also attempt to find the cause of the anger and help the patient alleviate it.

- Self-pity

  Self-pity means feeling sorry for oneself.

  When patient's emotional responses are identified, the nurse should help bring these responses to a conscious level. Taking the time to listen to the patient can be an effective measure.

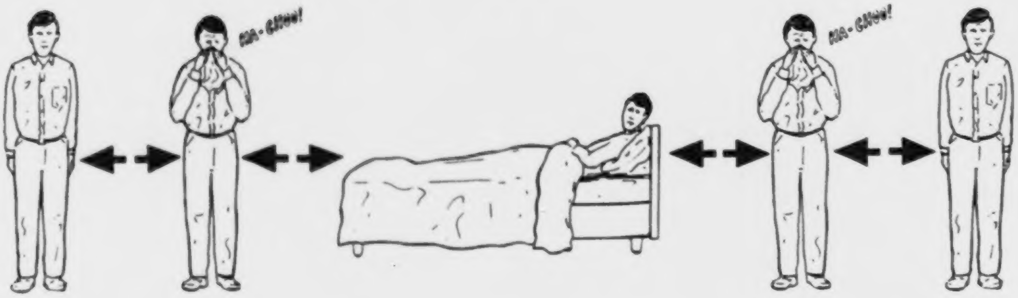
OBJECTIVE 5 **Match characteristics of illness to their correct stages.**

Most people experience a general pattern of behavior during illness. This pattern can be described as "stages of illness."

The ability to recognize different stages of illness helps the nurse provide appropriate care for a patient.

The nurse should be aware that some patients may go through each of the stages successively, while others may move back and forth and repeat certain stages.

FIGURE 2


HA-CHOO!
HA-CHOO!

STAGES OF ILLNESS

1. Transition Stage

The stage of transition means the change from wellness to illness. The person experiences symptoms of illness and comes to realize that something has gone wrong. How seriously the person responds to this stage of illness depends on the severity of the symptoms.

The patient may put off seeking medical attention for fear of diagnosis. During this period, prominent responses are anxiety, guilt, shame, and denial.

If symptoms persist, some people may see a doctor. They may have mixed feelings about diagnostic tests. Some people may go from doctor to doctor, hoping to find the previous diagnosis incorrect.

During this and all stages, the nurse should listen to the patient and answer any questions.

2. **Acceptance Stage**

During the stage of acceptance, people tend to accept that they are ill and start to discuss health problems with others. They are usually frightened, but they may not be ready to seek a doctor at this time.

Eventually they seek professional help to confirm their illness and understand the symptoms. If the health practitioner validates illness, the person may admit that medical help will be needed.

Also, the person may show behavioral changes.

- The person may have fears and worries about lifestyle changes the illness may cause.
- The person may become concerned about small matters that would not previously have disturbed him or her.
- The person may change his or her perceptions, such as seeing the nurse in a mothering role and the physician as an all-powerful person.

In this stage, the person becomes a patient and assumes a dependent role. Some patients may accept dependence with ease, but others may give up control with great reluctance.

During this stage, a patient may express anger and resentment. The nurse should view the reactions as the person's attempt to handle the situation and encourage the expression of feelings without passing judgment or arguing.

The nurse assumes responsibility for the care of the patient and tries to meet the patient's individual needs.

3. **Convalescence Stage**

Convalescence is a period of recovery following illness. Patients must resume the responsibilities of self-care and must re-establish normal relationships with others. Depending on the illness, the length of this stage may vary.

The nurse helps the patient in this stage by the following:

- Gradually encouraging self-reliance
- Offering guidance and encouragement
- Helping renew patients' interest in their environment
- Communicating with family

OBJECTIVE 6

Describe nursing interventions to help patients adapt to illness.

Changes caused by serious illness and injury affect a person's sense of identity. Body image is one aspect of the patient's self-image that is changed by physical illness.

Body image may be regarded as a person's perception of his or her changing physical self. The concept of body image is important in understanding the complex reactions of people to changes in health status.

Major changes in the body image may be caused by medical/surgical interventions.

EXAMPLES: steroid therapy (medical), amputation (surgical)

Nursing Implications

To understand the concept of body image, the nurse needs to be aware of a patient's own attitude toward health, illness, trauma, disfigurement, and body function changes.

For instance, abnormal body appearance and functioning often lead to anxiety, revulsion, disgust, and pity.

To help a patient adapt to the changes in body image, the nurse may use the following guidelines:

- Empathize with patients and understand their emotional reactions to illness, trauma, and disfigurement.

  Know that patients often view the nurse's verbal and non-verbal response as a test of whether they are still worthwhile, despite their changed appearance or functioning.

- Understand what alteration in the body can mean to the patient and what adjustments the alteration will require.

- Include the patient's family in formulating a nursing care plan because they can help the patient cope with change.

- Support the patient's family and anticipate steps to respond to the patient's positive moves.

OBJECTIVE 7

Match common examples of diseases and disorders to their classifications.

Diseases and disorders are classified according to types of causes. The classifications of diseases and disorders are:

Chemical diseases
Physical diseases
Nutritional diseases
Neoplasms
Infection
Environmental diseases
Genetic diseases
Stress disorders

Chemical Diseases

Three types of chemical diseases are recognized:

- Organic chemicals, such as ethyl and methyl alcohol, and many organic pesticides, cause disorders.

  EXAMPLES: fetal stupor (ethyl alcohol), blindness (methyl alcohol), or damage to the central nervous system (pesticides)

- Inorganic chemicals, such as cyanide, mercury, and arsenic result in poisoning.

- Drugs, such as morphine and aspirin, can result in death if overdosed.

Physical Diseases

Three types of physical diseases are recognized:

- Mechanical trauma is an injury to any part of the body from a blow, crush, cut, or penetrating wound.

  EXAMPLE: a serious head injury

- Heat and cold diseases result from prolonged exposure to freezing or extremely high temperatures.

  EXAMPLES: frostbite (freezing temperatures), burns, or scalding (high temperatures)

- Radiation damages the chemical composition of body cells producing diseases.

  EXAMPLE: a lung disease caused by contacting radioactive substances in the air

Nutritional Diseases

Two types of nutritional diseases are recognized:

- Malnutrition (undernutrition) can cause common diseases of poor nutrition.

  EXAMPLE: Kwashiorkor disease which is caused by the deficiency of protein

- Nutritional excess is defined as obesity, which may be caused by excessive caloric intake, emotional stress, genetic factors, or endocrine dysfunction.

Neoplasms

Neoplasms (tumors) are caused by uncontrolled cell growth.

Infections

Infectious diseases are caused by microscopic organisms. Five types of infectious diseases are recognized:

- Bacterial infections are caused by bacteria.

  EXAMPLE: salmonella typhosa, the causative agent of typhoid fever

- Rickettsial infections are caused by ticks and lice.

  EXAMPLE: Rocky Mountain Spotted fever

- Viral diseases are caused by viruses.

  EXAMPLES: measles, chicken pox, influenza

- Protozoan infections are caused by protozoa.

  EXAMPLE: malaria

- Helminthic infections are caused by parasitic worms.

  EXAMPLES: ascariasis, schistosomiasis

Environmental Diseases

Four types of environmental diseases are recognized:

- Air pollution is caused by gaseous pollutants–such as carbon monoxide–and aerosols.

- Water pollution is caused by industrial contaminants.

- Radiation comes from both natural and manmade sources and can cause diseases resulting in chromosomal damage.
- Noise pollution is caused by noise produced by aircraft, trains, motorcycles, stereos, etc.

Genetic Diseases

Three classes of genetic diseases are recognized:

- Chromosome abnormalities occur when a person is born with either an abnormal number of whole chromosomes or extra or missing bits of chromosomes.

  EXAMPLES: Down's syndrome, Turner's syndrome

- Unifactorial disorders are the result of defects in a gene, or in a pair of genes, controlling the production of a particular protein.

  EXAMPLES: Cystic fibrosis, sickle cell anemia, Tay-Sachs disease, hemophilia, muscular dystrophy

- Multifactorial disorders are determined by a number of different genes that, with environmental influences, have an additive effect.

  EXAMPLES: Asthma, diabetes mellitus, schizophrenia

Stress Disorders

Two classes of stress disorders are recognized, though the two classes usually manifest together.

- Mental stress disorders occur when a person is faced with a stressful situation; the stress results in a variety of mental and emotional responses.

  EXAMPLES: Anxiety, depression

- Physical stress disorders also occur when a person is faced with a stressful situation; the stress results in a variety of physical responses.

  EXAMPLES: Dyspepsia, palpitations, muscular aches and pains

A special type of stress disorder common in medical-surgical situations is *posttraumatic stress disorder*, which is a specific response (either mental or physical, or both) to a specific stressful event, such as surgery.

OBJECTIVE 8 **Select true statements about fluid and electrolyte balance.**

To perform normal functions, the body needs to maintain a constant internal body environment. The maintenance of a constant internal environment is known as homeostasis, such as lowering the body temperature by sweating.

All body water is divided between two separate fluid compartments:

- One is the intracellular compartment which contains the intracellular fluid, or fluid within the cells.

- The other is the extracellular compartment which contains the extracellular fluid, or fluid outside the cells. Plasma and lymph are examples of extracellular fluids.

These fluids are not simply water but contain differing amounts of solutes, such as electrolytes and other bio-active molecules.

Electrolytes

Electrolytes in body fluids are active chemicals that unite in differing combinations. Concentration of electrolytes in the body is expressed in milliequivalent (mEq) per liter. Two kinds of electrolytes are cations and anions.

- Cations carry a positive charge (positive ions).

- Anions carry a negative charge (negative ions).

MAJOR ELECTROLYTES IN EXTRACELLULAR FLUID

Electrolytes	mEq/liter
Cations	
Sodium (Na^+)	75 - 170
Potassium (K^+)	40 - 60
Calcium (Ca^+)	5
Magnesium(Mg^+)	2
Total	122 - 237
Anions	
Chloride (Cl^-)	115 - 145
Bicarbonate (HCO_3^-)	26
Phosphate (HPO_4^{2-})	2
Sulfate (SO_4^{2-})	1
Organic acids	5
Proteinate	17
Total	149 - 179

NOTE: Normal ranges for electrolyte maintenance as measured in urine. Normal ranges may vary according to the institution. (Source: *The Merck Manual, vol. 1: General Medicine*. Berkow, Robert M.D., ed. Rahway, NJ: Merck Sharp & Dohme Research Laboratories, 1989.)

The major cation of the extracellular fluid is sodium and the major anion of the extracellular fluid is chloride. The major cation of the intracellular fluid is potassium and the major anion of the intracellular fluid is phosphate.

For the body to function properly, the composition and volume of body fluid must be maintained within narrow limits of normal.

- **Kidneys**

  The kidneys are responsible for regulating the ionic concentrations of the body. Any irregularities in the ionic concentrations can cause serious malfunction and diseases. For instance, a rise in the potassium ion level may cause serious abnormal performance in the heart.

The following are the major homeostatic functions of the kidneys:

- Regulating extracellular fluid volume by selective retention and excretion of body fluids.
- Regulating electrolyte levels in the extracellular fluid by selective retention of needed substances and excretion of unnecessary substances.
- Regulating pH of extracellular fluid by excretion or retention of hydrogen ions.
- Excreting metabolic wastes and toxic substances.

- **Heart and blood vessels**

  The heart circulates blood through the kidneys under sufficient pressure for urine to form. Poor circulation interferes with renal perfusion, as well as water and electrolyte regulation.

- **Lungs**

  The lungs remove approximately 300 ml of water every day through exhalation.

  Factors that increase fluid loss include

  - excessive coughing
  - rapid breathing

  Factors that decrease fluid loss include

  - mechanical ventilation
  - humidified oxygen

OBJECTIVE 9

Distinguish between fluid volume deficit and fluid volume excess.

Fluid volume disturbances have two categories:

- Fluid volume deficit (hypovolemic)
- Fluid volume excess (hypervolemic)

Fluid Volume Deficit

Fluid volume deficit (FVD) occurs when water and electrolytes are lost in the same proportion as they exit in normal body fluids, so the ratio of serum electrolytes to water remains the same.

FVD may be caused by abnormal fluid losses, such as vomiting, diarrhea, gastrointestinal suction, and sweating.

Important characteristics of FVD are acute weight loss, decreased skin turgor, oliguria (the production of a smaller than normal quantity of urine in relation to the volume of fluid taken in), concentrated urine, postural hypotension, and a weak, rapid pulse.

Assessment of fluid volume deficit

- Measure and evaluate fluid intake and output at least every eight hours.
- Be alert for a weak, rapid pulse and postural hypotension (a drop of over 10 mm Hg in the systolic pressure) when the patient changes from a lying to a sitting position.
- Monitor skin and tongue turgor regularly. The skin of the patient flattens slowly after a pinch is released and the tongue becomes smaller with additional longitudinal furrows.
- Monitor urinary concentration.

Fluid Volume Excess

Fluid volume excess (FVE) occurs when water and electrolytes are abnormally retained in extracellular fluid.

FVE may be caused by fluid overloading or by malfunction of the homeostatic mechanisms, such as kidneys, responsible for maintaining fluid balance.

Important characteristics of FVE are edema, distended veins, increased venous pressure, bounding pulse, and crackles.

Assessment of fluid volume excess

- Measure and evaluate fluid intake and output at least every eight hours.
- Weigh the patient daily.
- Assess breath sounds at least every eight hours.
- Monitor the degree of edema.

OBJECTIVE 10 **Discuss factors that affect health maintenance.**

Tobacco Use

The most common form of tobacco use is smoking cigarettes.

Smoking has been found to be related to the following diseases:

- Cancer
    - Cigarette smoking is the primary cause of lung cancer in humans. It is also connected with cancers of the respiratory system, such as cancers of the larynx, the oral cavity, and the lip.
    - Smokeless tobacco is a primary cause of cancers of the larynx, the oral cavity, and the lip.
- Cardiovascular diseases

  Cigarette smoking is also associated with cardiovascular diseases (disorders involving the heart and blood vessels).

The hazards of tobacco use may be avoided or alleviated in the following ways:

- Stop smoking (long-term smokers may still experience health benefits from quitting)
- Choose low tar and nicotine cigarettes
- Smoke fewer cigarettes
- Take fewer puffs from each cigarette
- Stop using smokeless tobacco

Age

As a person grows older, mental, and physical changes take place that may affect health.

Mental changes may include the following fears and worries:

- Patients may have difficulty giving up their habits and acquiring new responses essential to the changing environment
- Patients may consider themselves a burden upon others
- Patients may outlive their usefulness to society or themselves

Physical changes may include

- Decreased skin turgor, skin secretions, and elasticity
- Decreased body fat resulting in temperature sensitivity
- Decreased kidney output
- Decrease in sensory acuity
- Reduced cardiac output
- Respiratory problems
- Decreased metabolism
- Possible susceptibility to thrombus formation
- Possible susceptibility to infections
- Osteoporosis
- Limited mobility
- Poor vision
- Hearing loss

A way to overcome these fears is to develop a positive attitude toward old age and realize that aging is a normal course of life.

Chronic Diseases

Chronic diseases refer to illnesses that are not communicable but last over long periods of time. Chronic diseases have become health hazards because more people live long enough to be subjected to these diseases.

Environmental factors also play a role in many chronic diseases. For instance, cancer is more common among workers in the synthetic dye and radium paint industries.

Nutritional factors may be responsible for atherosclerosis (hardening of the arteries). Overnutrition (obesity) is associated with heart disease, nephritis, and diabetes.

Common chronic diseases are

- Respiratory diseases
- Cardiovascular diseases (heart and blood vessel diseases)
- Cardiovascular accident (stroke)
- Hypertension (high blood pressure)
- Cancer
- AIDS (Acquired Immune Deficiency Syndrome)
- Mental illness
- Diabetes
- Rheumatism and arthritis

Chronic diseases can be cured or alleviated in the following ways:

- The public should be educated that early detection of chronic diseases enhances cure or control.
- Education regarding the disease should be part of the treatment.
- Patients and their families should demand from health professionals explanations about the disease and the alternative treatments.

Environment

People need to become aware of how our environment threatens our health. Pollution, overpopulation, and industrialization have deteriorated our surroundings, causing many environmental diseases.

In order to lessen the risks imposed by the environment, environmental controls should be adopted.

- The state and local governments should enforce regulations on pollution to ensure a healthful environment.
- The public school curriculum should emphasize the importance of the conservation of the environment.
- Smoke-free facilities should be adopted and enforced.

Family

The family plays an important role in caring for the health of its members. When a family member is ill, the family can provide immediate health care and consolation.

The family may help alleviate the health problems of its members, but lack of health care in a family worsens the health situation of its members.

A family can improve the health condition of any member who is ill in the following ways:

- Developing an environment that fosters good health practices and personal growth
- Preventing illness through nutritional food and health practices
- Helping family members make decisions about seeking medical care
- Providing nursing care for all family members

Health Care

It is important for local, state, and federal governments to provide health care for their people. The governments are also responsible for ensuring that every community and state has safe and healthful living conditions.

The federal government is responsible for providing the following preventive measures:

- Ensuring that drinking water and sewage disposal are sanitary
- Inspecting the quality of food and food establishments to ensure the proper handling of food
- Ensuring that hospitals, nursing homes, and day-care centers meet standards of safe care
- Providing immunization programs
- Providing medical and financial assistance to people in special need of help
- Providing education on health matters through the schools and in special publications and courses

Most health activities of the federal government are carried out under the supervision of the United States Department of Health and Human Services. The following are some major participating agencies:

- Food and Drug Administration (FDA)
  FDA protects the nation against impure and unsafe foods, drugs, and cosmetics, and other possible hazards.

- National Institute of Health (NIH)
  NIH conducts medical research on the causes, preventions, and cures of diseases.

- Center for Disease Control (CDC)
  CDC administers national programs for preventing and controlling communicable diseases and other preventable diseases.

The federal government also administers two programs, Medicare and Medicaid, which provide individuals with payment of personal health services.

State governments have the following responsibilities for health care:

- Developing programs to meet the needs of their people
- Following federal guidelines and regulation for programs funded by the federal government
- Setting standards through licensing programs and through enforcing sanitary codes and health laws
- Providing direct services to local communities which lack medical facilities or personnel

Local governments are responsible for the following tasks:

- Protecting and promoting public health and high-level wellness
- Ensuring safe water supplies
- Inspecting and licensing restaurants and public eating places
- Enforcing state and federal regulations to control communicable diseases
- Enforcing regulations related to immunizations
- Providing physical examinations, vision testing, hearing testing, and general health counseling

- Providing health education and information to help both young people and older people develop habits of personal hygiene and physical fitness

Lifestyle

Sound health habits can help maintain good health. Some sound health habits are

- Stress management: People experience stressors (changes which produce stress) that challenge their ability to meet their needs and maintain health. Successful adaptation to stressors results in good health, while maladaption results in illness.

- Balanced lifestyle: A balanced lifestyle means maintaining an equilibrium between emotional, psychological, and physiological aspects of health.

- Exercise: An exercise program recommended by a doctor can promote both physical and mental health.

- Hygiene: Good personal hygiene can alleviate the risk of infection and disease, and enhance a high level of wellness.

- Nutrition: Crucial to good health. Malnutrition is a condition characterized by a lack of necessary or proper food substances, or improper absorption and distribution of food substances in the body. The nurse, in association with the dietician, should help patients meet appropriate nutritional needs to maintain and improve their health.

OBJECTIVE 11

Match nursing responsibilities for medical-surgical patients to steps in the nursing process.

As practical nurses assume responsibility for assistance in a medical-surgical patient's nursing diagnoses, they need to accomplish four of the five fundamental components in the nursing process:

1. **Assessment**

   Assessment begins with the nurse's first contact with the patient. Its purpose is to assess the patient's actual and potential health needs and hence establish nursing diagnoses.

   The assessment includes a nursing history and an appraisal of the patient's readiness for hospitalization or outpatient services.

   - **nursing history** – determines the patient's state of wellness or illness

The nursing history is best accomplished by interview. Through the interview, the nurse has the opportunity not only to collect data but also to convey support, interest, and understanding to the patient.

- **physical examination** – determines the patient's physical alterations, limitations, and attributes, which may compensate for his or her limitations

  To achieve the purpose of the physical examination, nurses must be skillful in the techniques of inspection, auscultation, percussion, and palpation. Also, they must have a sound knowledge of the anatomy, physiology, and symptomatology of the disease process.

- **other sources of assessment data** – nurse collects data from the patient and gathers additional information from the following sources:

  - patient's family or close friends
  - members of the health team
  - patient's health record

- **nursing diagnoses** – refers to the patient's actual or potential health problems and needs to be addressed by the following nursing actions:

  - Identify the commonalities among the data collected from the patient.
  - Categorize related data that reveal the existence of a problem and the need for intervention.

2. **Analysis**

Analysis is normally the responsibility of the Registered Nurse. During this step all of the assessment data are organized and compared to "normal values" as presented in the text books. The practical nurse looks at the assessment data to identify any patient problems or basic needs that are not being met. The problems may be actual problems that the patient is currently experiencing. The problems may also be potential problems that the nurse recognizes may develop.

3. **Planning**

During this step a nursing care plan is developed. This care plan is a guide to help nurses implement appropriate nursing care and measures according to the nursing diagnosis. It should include the goals of the nursing care and any available alternatives.

4. **Implementation**

The implementation step of the nursing process follows the formulation of the nursing care plan.

Implementation means conducting the proposed care plan or supervising others who implement the plan. The nurse is responsible for coordinating the activities of all people involved.

- The nursing care plan serves as the basis for implementation.
- The expected patient outcomes are used as a focus for implementing the designed nursing interventions.
- While implementing nursing care, the nurse continually assesses the patient's response to the nursing care.
- The nurse revises the care plan as the patient's condition, problems, and responses change.

5. **Evaluation**

This step evaluates the patient's response to the nursing interventions and the extent to which the patient outcomes have been achieved.

The evaluation phase consists of the following components:

- Collect and analyze data.
- Compare the patient's outcomes to the outcome criteria. Determine the extent to which the outcomes were achieved.
- Evaluate the nursing care plan in consultation with the patient, the patient's family, and nursing team members during the evaluation.
- Update the nursing care plan to meet the needs that the patient still has after the original plan was implemented.

ASSIGNMENT SHEET

Development of:
READING SKILLS
SCIENCE SKILLS
CREATIVE THINKING/PROBLEM SOLVING SKILLS
EMPLOYABILITY SKILLS

- Introduce the assignment to the students by discussing why reading, science, creative thinking/problem solving, and employability skills are important.

- Discuss with them the following skills which are relevant to this task:

  READING

  - Interpreting forms and records
  - Following written instructions

  SCIENCE

  - Investigating/applying principles of anatomy/physiology
  - Investigating health issues
  - Investigating/applying chemical properties

  CREATIVE THINKING/PROBLEM SOLVING

  - Analyzing/synthesizing information
  - Drawing conclusions
  - Transferring knowledge/training to new situations

  EMPLOYABILITY

  - Mastering a specific job task/procedure

- If students have difficulty interpreting forms and records:

  - Examine the structure of the forms being used.
  - Review the terminology on the form.

  - Review the information recorded in each form.
  - Review each form kept on record and compare records kept over time.

- If students have difficulty following written instructions:
  - Discuss the possible consequences of not following instructions precisely.
  - Have them read the instructions several times, noting the key words and ideas.
  - Have students identify facts and conclusions. Have them identify the facts each conclusion is based upon.
  - Have students relate each step of the instructions to previous steps.

- If students have difficulty investigating/applying principles of anatomy/physiology:
  - Review the characteristics of each test result or assessment.
  - Discuss the relationships among recorded information, clinical signs, and assessments.
  - Review absorption and excretion of electrolytes.

- If students have difficulty investigating health issues:
  - Have them identify the issues they are considering.
  - Have them explain the link between the issue and the procedure.
  - Refer them to standard references to answer questions they may have. Review the use of references, if needed.

- If students have difficulty investigating/applying chemical properties:
  - Review the properties of the chemicals involved.
  - Review the relationship of chemical levels and their functions.
  - Discuss interaction of various chemicals in the body.
  - Review positive and negative balance of electrolytes.

EXAMPLE: Sodium balance should be zero; discuss ingestive and excretory factors that can create a positive or negative balance.

- If students have difficulty analyzing/synthesizing information:
  - Remind students that to analyze information, they must break the information down into all its component parts in order to understand it.
  - Remind them that to synthesize information, they should put all the component parts together in a way that makes the information usable.
  - Have students identify when they are analyzing and when they are synthesizing, and why each is appropriate.
  - Take students through the process from both directions. Have students review patient information and develop a diagnosis. Then have some students present a diagnosis and let others identify the information on which the diagnosis should be based.
- If students have difficulty drawing conclusions, direct them to examine the collected data and look for patterns, the range of normal, and the symbols and scales used.
- If students have difficulty transferring knowledge/training to new situations:
  - Review the pertinent training. Compare the new situation to the training situation.
  - Examine ways in which training can be used in the new situation.
  - Compare assessments and diagnoses of related conditions.
- If students have difficulty mastering a specific job task/procedure:
  - Emphasize the fact that practice makes a person proficient and proficiency makes a person confident.
  - Suggest that they study each component of the procedure to determine which area is causing difficulty.
  - Review the entire procedure.
  - Team students having difficulties with proficient students or professionals to practice the job task/procedure.

ASSIGNMENT SHEET | APPLYING BASIC PRINCIPLES OF MEDICAL-SURGICAL CARE

I

Name ______________________ Score __________

OBJECTIVE 13 **Assess fluid and electrolyte balance.**

INTRODUCTION

The fluid-electrolyte balance of a patient is a critical factor in medical-surgical care. Understanding the causes of fluid-electrolyte imbalance is important in formulating a plan of care. Consult the information provided on this and the following page and assess the fluid-electrolyte balance of the patient.

Assessing fluid and electrolyte imbalances consists of two steps:

1. Pulling the patient's chart

2. Diagnosing

The procedure for each step is:

1. Pull the patient's chart

    - Read the medical diagnosis

    - Read the lab values for Na and P

    - Review the patient's I and O record

    - Review the patient's daily weight

2. Diagnosis

    - Perform a physical assessment of the patient consisting of:

        – Assessment of skin condition
        – Assessment of level of consciousness
        – Assessment for presence of edema

Functional Reading Skills
- Interpret forms and records
- Follow written instructions

Life Science Skills
- Investigate/apply principles of anatomy/ physiology
- Investigate health issues (medical, ergonomic, nutrition, mental health)

Cognitive Activities Skills
- Analyze/synthesize information
- Draw conclusions
- Transfer knowledge/ training to new situations

Job Acquisition/ Development Skills
- Master specific job task/procedure

BEST COPY AVAILABLE

Summary of Major Fluid and Electrolyte Imbalances

Imbalance	Causes	Clinical Symptoms
Fluid volume deficit	Loss of water and electrolytes, as in vomiting, diarrhea, gastrointestinal suction, decreased intake, as in anorexia, nausea, and inability to gain access to fluid	Acute weight loss, decreased skin and tongue turgor, concentrated urine, weak, rapid pulse, and low central venous pressure
Fluid volume excess	Compromised regulatory mechanisms, such as renal failure and congestive heart failure, and overzealous administration of sodium-containing fluids	Acute weight gain, edema, distended veins, crackles, and elevated central venous pressure
Sodium deficit	Loss of sodium, as in use of diuretics, loss of gastrointestinal fluids, and adrenal insufficiency	Anorexia, nausea and vomiting, lethargy, confusion, muscle cramps, muscular twitching, seizures
Sodium excess	Water deprivation in patients unable to drink at will, hypertonic tube feedings without adequate water supplements, diabetes insipidus, heatstroke, and watery diarrhea	Thirst, high body temperature, swollen dry tongue and sticky mucous membranes, hallucination, lethargy, irritability, focal or grand mal seizures
Potassium deficit	Diarrhea, vomiting, gastric suction, steroid administration	Fatigue, anorexia, nausea and vomiting, muscle weakness, decreased bowel motility
Potassium excess	Pseudohyperkalemia (increase of serum levels of potassium), renal failure	Vague muscular weakness, flaccid paralysis, intestinal colic
Calcium deficit	After thyroid surgery or radical neck dissection, malabsorption, pancreatitis, and alkalosis	Numbness, tingling of fingers, toes
Calcium excess	Malignant neoplastic disease, prolonged immobilization, and overuse of calcium supplements	Muscular weakness, constipation, anorexia, nausea and vomiting, neurotic behavior
Magnesium deficit	Chronic alcoholism, malabsorption disorders	Neuromuscular irritability, disorientation
Magnesium excess	Renal failure, adrenal insufficiency, excessive magnesium administration	Hypotension, drowsiness, hypoactive reflexes, depressed respirations, coma
Phosphorus deficit	Alcohol withdrawal, diabetes	Muscle weakness, muscle pain and tenderness, mental changes, respiratory failure
Phosphorus excess	Renal failure, excessive intake of phosphorus	Tingling of fingertips, and around mouth

DIRECTIONS Read the following information concerning a patient, then answer the questions based on information from the patient's chart and physical assessment.

The patient is diagnosed as having chronic kidney disease. The lab value for Na is 120 mEq. The lab value for P is 50 mEq. The I and O record shows decreased urination. The chart records a daily weight loss.

During the physical examination, the patient's skin is observed to be wrinkled and dry. The patient seems slightly confused at times. There is no indication of edema.

1. Is the patient suffering from FVD or FVE?
2. What information from the patient's chart and the physical assessment helped you make this nursing diagnosis?

ASSIGNMENT ANSWERS

APPLYING BASIC PRINCIPLES OF MEDICAL-SURGICAL CARE

ASSIGNMENT SHEET

OBJ

1. FVD

2. Answers may vary according to student but sl following information:

   - patient has normal lab values
   - decreased urination
   - weight loss
   - skin condition
   - level of consciousness
   - absence of edema

OBJ

WRITTEN
TEST

APPLYING BASIC PRINCIPLES OF MEDICAL-SURGICAL CARE

I

Name ______________________________ Score __________

OBJECTIVE 1

Match terms associated with concepts of health/illness and medical-surgical care to their correct definitions. Write the correct letters in the blanks.

Part I

_____ 1. The patient's actual or potential health problems and needs to be identified and acted upon by nurses

_____ 2. The way one perceives his or her physical attributes

_____ 3. A substance capable of breaking into ions when dissolved in solution

_____ 4. The body's adjustment to varying circumstances and conditions

_____ 5. Fluid within the cells

_____ 6. Functioning to the maximum ability within one's environment

_____ 7. Services offered by various health disciplines

_____ 8. Expected responses after planned nursing interventions

a. adaptation

b. body image

c. electrolyte

d. patient outcomes

e. health care

f. hemostasis

g. high-level wellness

h. holistic health care

i. intracellular fluid

j. nursing care plan

k. nursing diagnosis

l. nursing goals

m. self-image

n. stage of acceptance

May be photocopied for student use.

Part II

_____ 1. Fluid outside the cells

_____ 2. Maintenance of uniformity, stability, and constancy within the body

_____ 3. Health care that takes into account the whole person in the environment in the prevention and treatment of disease

_____ 4. Guide to help nurses implement appropriate nursing care according to the nursing diagnosis

_____ 5. Change from wellness to illness

_____ 6. Patient outcomes expected after receiving nursing interventions

_____ 7. The way one perceives oneself

_____ 8. The period in which the person tends to accept he or she is ill

_____ 9. The period of recovery following illness

a. adaptation
b. body image
c. electrolytes
d. extracellular fluid
e. high-level wellness
f. holistic health care
g. homeostasis
h. intracellular fluid
i. nursing diagnosis
j. nursing goals
k. plan of care
l. self-image
m. stage of acceptance
n. stage of convalescence
o. stage of transition

OBJECTIVE 2

Select true statements about health and the wellness-illness continuum. Write an "X" in the blank before each true statement.

_____ 1. According to the World Health Organization, health is defined as the state of physical and mental health, independent of the person's environment.

_____ 2. The wellness-illness continuum means that a person is in continuous state of both wellness and illness during his or her life.

_____ 3. Nursing practice is to assist patients to use their attributes in attaining and maintaining the highest level of wellness possible within the patient's physical and psycho-social limitations.

May be photocopied for student use.

_____ 4. The wellness-illness continuum takes into consideration the whole person in his or her environment.

OBJECTIVE 3 **Select ways in which high-level wellness can be promoted.** Write an "X" in the blank before each true statement.

_____ 1. High-level wellness can be promoted by improving living conditions of family and community.

_____ 2. High-level wellness can be promoted by assisting individuals and families.

_____ 3. High-level wellness can be promoted by improving the quality of life for children but not adults.

_____ 4. High-level wellness can be promoted through good human relations.

_____ 5. To attain high-level wellness, one must be a creative person.

OBJECTIVE 4 **List human responses to illness.** List below seven physical or mental responses to illness.

1. ____
____

2. ____
____

3. ____
____

4. ____
____

5. ____
____

May be photocopied for student use.

6. ____

____

7. ____

____

OBJECTIVE 5

Match characteristics of illness to their correct stages. Write the correct letters in the blanks. Answers may be used more than once.

_____ 1. The person experiences symptoms of illness and realizes something is wrong

_____ 2. The person becomes a patient and assumes a dependent role

_____ 3. The patient gives up the dependent role and reassumes responsibilities of taking care of himself or herself

_____ 4. The person may have ambivalent feelings toward diagnostic tests

_____ 5. The person admits that he or she is ill and needs help from others

_____ 6. The person puts off seeking medical attention

_____ 7. The person may become concerned about trivial matters that would not have previously been a bother

a. transition stage

b. acceptance stage

c. convalescence stage

May be photocopied for student use.

OBJECTIVE 6 **Describe nursing interventions to help patients adapt to illness.** Write the ways nurses can help patients adapt to the changes in body image.

____

____

____

____

____

____

____

____

OBJECTIVE 7 **Match common examples of diseases and disorders to their classifications.** Write the correct letters in the blanks. Answers may be used more than once.

Part I

_____ 1. Blindness caused by consumption of methyl alcohol

_____ 2. Frostbite

_____ 3. Obesity

_____ 4. Cyanide poisoning

_____ 5. A serious head injury

_____ 6. Typhoid fever caused by Salmonella typhosa

_____ 7. Suffocation caused by carbon monoxide

_____ 8. Diseases caused by industrial contaminants

_____ 9. Illness caused by stressors

_____ 10. Disease caused by chromosomal damage

a. chemical disease

b. environmental disease

c. genetic disease

d. infectious disease

e. neoplasm

f. nutritional disease

g. physical disease

h. stress disorder

May be photocopied for student use.

Part II

_____ 1. Poisoning caused by consuming arsenic in rat poisons

_____ 2. Scald

_____ 3. Kwashiorkor (a disease caused by the deficiency of protein)

_____ 4. A disease caused by the growth of abnormal cells

_____ 5. Malaria caused by mosquito bites

_____ 6. A disease caused by ticks and lice

_____ 7. A lung disease caused by contacting radioactive substances in the air

_____ 8. Malignant tumors

_____ 9. Congenital malformation

_____ 10. A state due to a change in the environment considered to be disturbing to a person's mental equilibrium

a. chemical disease

b. environmental disease

c. genetic disease

d. infectious disease

e. neoplasm

f. nutritional disease

g. physical disease

h. stress disorder

OBJECTIVE 8

Select true statements about fluid and electrolyte balance. Write an "X" in the blank before each true statement.

_____ 1. Sweating is an example of homeostasis.

_____ 2. The extracellular fluid is the fluid within the cells.

_____ 3. The body fluids contain only water.

_____ 4. Cations and anions are two kinds of electrolytes.

May be photocopied for student use.

_____ 5. A cation carries a negative charge.

_____ 6. The body can function equally well with differing ionic concentrations in the body fluids.

_____ 7. The kidneys are responsible for regulating the ionic concentrations in the body.

OBJECTIVE 9

Distinguish between fluid volume deficit and fluid volume excess. Write "FVE" if the condition is characteristic of Fluid Volume Excess. Write "FVD" if the condition is characteristic of Fluid Volume Deficit.

_____ 1. Edema

_____ 2. Acute weight loss

_____ 3. Oliguria

_____ 4. Crackles

_____ 5. Decreased skin turgor

_____ 6. Distended veins

_____ 7. Concentrated urine

_____ 8. Postural hypotension

_____ 9. Increased venous pressure

_____ 10. Bounding pulse

_____ 11. Weak, rapid pulse

OBJECTIVE 10

Discuss factors that affect health maintenance. Choose from the following list any four risk factors that threaten health. Discuss briefly how these factors affect health and how any negative effects of these factors can be minimized.

- lifestyle
- tobacco use
- environment
- nutrition
- family
- income
- age
- health care
- chronic diseases

____

____

May be photocopied for student use.

May be photocopied for student use.

OBJECTIVE 11

Match nursing responsibilities for medical-surgical patients to steps in the nursing process. Write the correct letters in the blanks.

Part I

_____ 1. Revision of the care plan

_____ 2. The nursing history

_____ 3. Evaluation of the nursing care plan

_____ 4. Goals of nursing care

_____ 5. The physical examination

_____ 6. Alternatives of nursing care

_____ 7. Organize assessment data

a. assessment
b. planning
c. implementation
d. evaluation
e. analysis

Part II

_____ 1. Development of updated nursing care plan

_____ 2. Selection of appropriate nursing measures

_____ 3. Nursing diagnoses

_____ 4. Implementation of the proposed care plan

_____ 5. Formulation of the nursing care plan

_____ 6. Analysis of the patient's behavioral outcomes to the outcome criteria

_____ 7. Responsibility of the RN

a. assessment
b. planning
c. implementation
d. evaluation
e. analysis

NOTE: Objective 12 is evaluated on assignment sheet in this unit. If you have not completed this component, see your instructor.

May be photocopied for student use.

WRITTEN TEST ANSWERS

APPLYING BASIC PRINCIPLES OF MEDICAL-SURGICAL CARE

I

OBJECTIVE 1

Part I		Part II	
1.	k	1.	d
2.	b	2.	g
3.	c	3.	f
4.	a	4.	k
5.	i	5.	o
6.	g	6.	j
7.	e	7.	l
8.	d	8.	m
		9.	n

OBJECTIVE 2 2, 3, 4

OBJECTIVE 3 1, 2, 4

OBJECTIVE 4 Student must list seven of these answers.

- Impaired functioning in rest, sleep, ventilation, circulation, activity, nutrition, elimination, skin, or sexuality.
- Pain and discomfort
- Mental disorientation
- Inability to make decisions
- Self-image changes
- Fear
- Anxiety
- Feelings of helplessness

- Anger
- Self-pity

OBJECTIVE 5

1. a
2. b
3. c
4. a
5. b
6. a
7. b

OBJECTIVE 6

Students must describe nursing interventions to help patients adapt to illness.

OBJECTIVE 7

Part I		**Part II**	
1.	a	1.	a
2.	g	2.	g
3.	f	3.	f
4.	a	4.	e
5.	g	5.	d
6.	d	6.	d
7.	b	7.	b
8.	b	8.	e
9.	h	9.	c
10.	c	10.	h

OBJECTIVE 8

1, 4, 7

OBJECTIVE 9

1. FVE
2. FVD
3. FVD
4. FVE
5. FVD
6. FVE
7. FVD
8. FVD
9. FVE
10. FVE
11. FVD

OBJECTIVE 10

Student should briefly discuss four of the following risk factors that affect health: lifestyle, tobacco use, environment, nutrition, age, chronic diseases, family, income, or health care.

OBJECTIVE 11

Part I		**Part II**	
1.	c	1.	c, d
2.	a	2.	b
3.	d	3.	a
4.	b	4.	c
5.	a	5.	b
6.	b	6.	d
7.	e	7.	e

OBJECTIVE SHEET

PROVIDING CARE FOR PATIENTS WITH COMMUNITY-ACQUIRED INFECTIOUS DISEASES

II

INTRODUCTION

Community-acquired infectious diseases affect patients of all ages. Some diseases are merely uncomfortable, while others can be fatal if not diagnosed and treated properly. Community-acquired infectious diseases account for the majority of illness in the United States. These diseases can be categorized into five basic types: bacterial, viral, rickettsial, protozoal, and helminthic infestations; taken as a whole they affect all social and economic groups.

UNIT OBJECTIVE

After completing this unit, the student will be able to recognize symptoms of community-acquired infectious diseases and associated treatments. In addition, the student will learn the vocabulary of infectious diseases, means of transmission, and infectious agents. The student will demonstrate these competencies by completing the assignment sheets and written test with a minimum of 85 percent accuracy.

PREREQUISITES

Body Structure and Function
Nursing Principles and Skills
Nursing Concepts
Nutrition
"Applying Basic Principles of Medical-Surgical Care"

SPECIFIC OBJECTIVES

After completing this unit, the student will be able to:

1. Match terms associated with community-acquired infectious diseases to their correct definitions.
2. Select true statements about characteristics of community-acquired infectious diseases.
3. Distinguish among modes of transmission.
4. Discuss methods of communicable disease control.
5. Match diseases with the corresponding category.
6. Select true statements about definitions of community-acquired infectious diseases.
7. Promote public education on the importance of immunizations. (Assignment Sheet 1)

8. Formulate a teaching plan for a patient/client with an infectious disease. (Assignment Sheet 2)

9. Develop a plan of care for a patient/client with a community-acquired infectious disease. (Assignment Sheet 3)

PROVIDING CARE FOR PATIENTS WITH COMMUNITY-ACQUIRED INFECTIOUS DISEASES

PREPARATION

- Review the unit and plan your presentation.
- Determine the scope and sequence of objectives you add. Design and develop support materials, including evaluation techniques for additional objectives.
- Review teaching suggestions and plan classroom activities.
- Determine how you will schedule time for students to demonstrate competence in the required procedures.
- Order materials to supplement the unit.
- Order films and videos.
- Invite a guest speaker to discuss medical-surgical care.

  NOTE: Please provide the guest speaker with the specific topic relevant to the unit of instruction ahead of time. You may want to supply the objective sheet, information sheet, and any other components you want the speaker to cover. Confirm the scheduled appearance two to three days prior to the presentation.
- Obtain photographs of patients with community-acquired infectious diseases.
- Make a poster of community-acquired infectious diseases and their agents.
- Make a bulletin board showing the path of infectious agents in the community.
- Devise games and/or crossword puzzles to reinforce terms or groupings.
- Make transparencies.
- **HOSA** Integration
  - Assist students in conducting a chapter service project on community-acquired infectious diseases.
  - Develop objectives for a service project and identify a theme.

- Create a poster according to Extemporaneous Health Display rules. Display in highly visible areas.

- Plan a community or school health project that involves disseminating pamphlets about diseases and proper treatments.

DELIVERY

- Discuss unit and specific objectives.

- Encourage students to use computer software, if computers are available.

- Devise games and/or crossword puzzles to reinforce terms.

Objective 1: Match terms associated with community-acquired infectious diseases to their correct definitions.

- Have students play reinforcement games and work crossword puzzles using terms.

Objective 2: Select true statements about characteristics of community-acquired infectious diseases.

- Have students discuss in general terms their present knowledge concerning the characteristics of community-acquired infectious diseases.

Objective 3: Distinguish among modes of transition.

- Have students give examples of diseases transmitted through different modes.

- Show *VD: More Bugs, More Problems.*

- Show *AIDS: Profile of an Epidemic.*

- Show *AIDS.*

- Show *AIDS: What Every Kid Should Know.*

Objective 4: Discuss methods of communicable disease control.

- Discuss the importance of disease control and prevention.

- Show *Infection Control: Principles and Guidelines for Hospital Employees.*

- Show *Infection Control: An Update for the Health Professional.*

- Show *Infection Control: Special Report.*
- Show *AIDS: Infection Control.*

Objective 5: Match diseases with the corresponding category.

- Have students make flash cards of diseases and their categories and drill one another.
- Discuss Student Supplement to learn about Hepatitis C, D, and E.

Objective 6: Select true statements about definitions of community-acquired infectious diseases.

- Have students use the flash cards from Objective 5 to drill one another on disease definitions instead of categories.

APPLICATION

Objective 7: Promote public education on the importance of immunizations.

- Have students complete Assignment Sheet 1 to understand the importance of immunizations.

Objective 8: Formulate a teaching plan for a patient/client with an infectious disease.

- Have students complete Assignment Sheet 2 to formulate a teaching plan for a patient/client with an infectious disease.

Objective 9: Develop a plan of care for a patient/client with a community-acquired infectious disease.

- Have students complete Assignment Sheet 3 to understand the importance of developing a plan of care for a patient/client with a community-acquired infectious disease.

EVALUATION

Pretest

- Give written test as pretest.
- Determine individual study requirements from pretest results.
- Counsel students individually on pretest results and study requirements.
- Modify materials in unit or create supplementary materials for individual students as required.

Written Test

- Explain to students that they will be asked to demonstrate on the written test actions listed in the specific objectives.
- Evaluate students on assignment sheet activities if not previously done.
- Give the written test.

  NOTE: The written test may be given in sections if desired.
- Reteach and retest if necessary.
- Complete the appropriate sections of competency profiles.
- Review individual and group performance in order to evaluate teaching methods. Adjust scope, sequence, or instructional approaches for additional lessons as required.

SUGGESTED RESOURCES

Electronic Media

- *Infection Control: Special Report* (VHS, 31 min.)

The above video is available from:

Concept Media
P.O. Box 19542
Irvine, CA 92713
(800) 233-7078

- *AIDS* (VHS, 12 min.)
- *AIDS: Profile of an Epidemic* (VHS, 60 min.)

The above videos are available from:

National Innovative Media Company
Route #2, Box 301B
Calhoun, KY 42327
(800) 962-6662.

- *Infection Control: Principles and Guidelines for Hospital Employees* (VHS, 22 min.)
- *Infection Control: An Update for the Health Professional* (VHS, 27 min.)
- *AIDS: Infection Control* (VHS, 25 min.)
- *AIDS: What Every Kid Should Know* (VHS, 15 min.)

- *VD: More Bugs, More Problems* (VHS, 20 min.)

The above videos are available from:

Oklahoma Department of Vocational and Technical Education
1500 W. Seventh Avenue
Stillwater, Oklahoma 74074

Print Media

- Anderson, Roy M. and Robert M. May. *Infectious Diseases in Humans: Dynamics and Control.* Oxford U. Press: NYC, 1991.
- Berkow, Robert and Andrew J. Fletcher, eds. *The Merck Manual of Diagnosis and Therapy* (15th ed.). vol 1, Merck Sharp & Dohme Research Laboratories: Rahway, N.J., 1987.
- Bouvette, Marguerite. *Communicable Diseases Policies and Procedures.* M & H: Houston, 1990.
- *Dorland's Illustrated Medical Dictionary* (27th ed.). W.B. Saunders Co.: Philadelphia, 1988.
- Griffith, H. Winter. *Complete Guide to Symptoms Illness & Surgery.* The Body Press: Los Angeles, CA, 1989.
- Harvard, C.W., ed. *Black's Medical Dictionary* (36th ed.). Adam and Charles Black: London, 1990.
- Schaechter, Moselio, Gerald Medoff and David Schlessinger. *Mechanisms of Microbial Disease.* Williams & Wilkins: Baltimore, MD, 1989.
- Taylor, Janeen M. and W. Scott Taylor. *Communicable Diseases and Young Children in Group Settings.* Pro-Ed: Austin, TX, 1989.

UNIT REFERENCES

Print Media

- Anderson, Roy M. and Robert M. May. *Infectious Diseases in Humans: Dynamics and Control.* Oxford U. Press: NYC, 1991.
- Berkow, Robert and Andrew J. Fletcher, eds. *The Merck Manual of Diagnosis and Therapy* (15th ed.). vol 1, Merck Sharp & Dohme Research Laboratories: Rahway, N.J., 1987.
- Bouvette, Marguerite. *Communicable Diseases Policies and Procedures.* M & H: Houston, 1990.
- *Dorland's Illustrated Medical Dictionary* (27th ed.). W.B. Saunders Company: Philadelphia, 1988.

- Griffith, H. Winter. *Complete Guide to Symptoms Illness & Surgery*. The Body Press: Los Angeles, CA, 1989.
- Harvard, C.W., ed. *Black's Medical Dictionary* (36th ed.). Adam and Charles Black: London, 1990.
- Schaechter, Moselio, Gerald Medoff and David Schlessinger. *Mechanisms of Microbial Disease*. Williams & Wilkins: Baltimore, MD, 1989.
- Taylor, Janeen M. and W. Scott Taylor. *Communicable Diseases and Young Children in Group Settings*. Pro-Ed: Austin, TX, 1989.

PROVIDING CARE FOR PATIENTS WITH COMMUNITY-ACQUIRED INFECTIOUS DISEASES *II*

OBJECTIVE 1

Match terms associated with community-acquired infectious diseases to their correct definitions.

- **agent** – the organism that causes a disease
- **antibody** – a substance in the blood which destroys or neutralizes various toxins, known generally as antigens (as antigens invade the body, an antibody is formed to combat antigens)
- **antigen** – a substance that stimulates body cells to produce antibodies specific in their action against the antigen
- **host** – any animal or plant upon which another organism lives parasitically
- **immunity** – the ability of a human being to resist or overcome infection
- **incubation** – the period between the time when a person becomes infected by an agent and the first occurrence of the symptoms of the disease
- **infection** – invasion of the tissues of a host by organisms (infectious agents) and the reaction of tissues to their presence or to their toxins; an infection may be clinically inapparent (see subclinical infection below)
- **infestation** – an invasion of the body by a parasitic worm
- **subclinical infection** – an infection which causes no symptoms
- **toxin** – frequently used to refer specifically to a protein, which is highly poisonous for living organisms, produced by some plants, animals, and pathogenic bacteria

OBJECTIVE 2

Select true statements about characteristics of community-acquired infectious diseases.

An infection is the invasion of the tissues of a host by organisms or the reaction of tissues to their presence. The infection may or may not affect the host's health.

If no illness occurs during infection, the process is called subclinical or silent infection. If symptoms of illness appear, the process is called infectious disease. A healthy person may transmit an organism by infecting a weaker person.

The agents of infectious disease are microorganisms, such as viruses, bacteria, and protozoans. Parasites such as itch mites (causing a contagious skin disease) are hardly visible, but helminths (worms) may grow to as long as several feet.

Microorganisms responsible for infection

Several major groups of microorganisms are responsible for infection in man.

- **Bacteria**
  Bacteria are divided, mainly according to their shape:

  - cocci — round
  - bacilli — long and slender
  - spirilla — curved or wavy

  They also have secondary names according to other physical properties, such as their particular form:

  - staphylococcus aureus occurs in grape-like clusters
  - streptococci are cocci arranged in chains
  - diplococci occur in pairs

- **Viruses**
  Viruses are the smallest of the infectious microorganisms and are invisible under the ordinary microscope (they are ultramicroscopic) but visible under the electron microscope.

  Some diseases caused by viruses are measles, mumps, chicken pox, rubella, viral encephalitis, influenza, AIDS, and the common cold.

- **Rickettsiae**
  Rickettsiae, named after the bacteriologist Ricketts, are disease-causing microorganisms. They are coccal or rod-shaped and their sizes are between those of bacteria and viruses. Rickettsiae are the infectious agents in typhus and Rocky Mountain Spotted Fever.

  Typhus is conveyed to man by infected lice, and Rocky Mountain Spotted Fever is transmitted by ticks or fleas.

- **Protozoa**
  Protozoa are the simplest organisms of the animal kingdom, consisting of unicellular organisms. The protozoa include organisms responsible for amebiasis and malaria.

- **Helminths**
  Helminths are parasitic worms, such as the roundworms (nematodes) and flatworms (platyhelminthes).

Entry and Spread of Organisms

Microorganisms may enter the human body in different ways. They may be swallowed in food or drink to attack the wall of the intestinal tract and cause local or general disease.

They can enter the human body through a cut in the skin or the mucous membranes (the tissues that line the nose, mouth, and upper respiratory tract).

Microorganisms can also enter the body through the genital tract, causing the inflammatory reaction of gonorrhea in the genital and pelvic organs.

Sometimes they are introduced through the bite of an infected insect or through a contaminated needle or splinter.

Natural Defense and Treatment

- The human body can protect itself against infection. For instance, tissue clots help prevent infectious organisms from attacking the body.

- The white blood cells can destroy the organisms that enter the body.

- Antibodies in the blood and body tissues can destroy many organisms or neutralize their toxins.

OBJECTIVE 3

Distinguish among modes of transmission.

Diseases can be transmitted in four modes: common vehicle, contact, airborne, and vectorborne.

- **Common-vehicle transmission**

  Common-vehicle transmission happens when a vehicle of infection brings organisms from a source into contact with susceptible hosts.

  Examples are foodborne outbreaks of salmonellosis and Hepatitis-A, waterborne outbreaks of typhoid fever, and milkborne outbreaks of staphylococcal disease.

- **Contact transmission**

  Contact transmission involves contact between a susceptible host and the source, with subsequent transfer of the infectious agent. The source can be either an inanimate or an animate object.

  The contact can be direct (by touching) or indirect. Indirect includes contact droplet spead or through a fomite (an item such as a book, an article of clothing, or a wooden object).

  Droplet spread is regarded as indirect contact because the infectious agents travel only a few feet through the air between the source and the host.

  Examples of direct contact diseases are sexually transmitted diseases, such as syphilis and gonorrhea. Streptococcal sore throats and scarlet fever are passed by person-to-person contact.

- **Airborne transmission**

  Disease organisms can be transmitted by the airborne route through droplet nuclei that contain the infectious organism. Droplet nuclei are tiny particles that can travel great distances before reaching a host.

  Tuberculosis and Legionnaire's disease are transmitted through the airborne route.

- **Vectorborne transmission**

  Vectorborne disease agents are transmitted either externally or internally. External transfer happens when a housefly transfers enteric organisms such as salmonellae and shigellae from its feet to food.

  Internal transfer occurs when the gastrointestinal tract of the host harbors the agent. An example is the harborage of shigella organisms in the gastrointestinal tract of a fly.

OBJECTIVE 4 **Discuss methods of communicable disease control.**

The following are control measures that prevent a disease before it occurs, as well as those that retard the spread of a disease after it occurs.

- **Legislative action**

  Communities can take legislative action to prevent infectious diseases. Some effective measures are as follows:

- Protection of the water supply (e.g., water chlorination)
- Protection of food supply (e.g., inspection of dairy herds, meat, poultry)
- Maintenance of sanitation in restaurants and sewage disposal

These measures help prevent infectious diseases, such as salmonellosis, Hepatitis-A, and shigellosis.

- **Immunization**

  Immunization can increase an individual's resistance to a communicable disease. Immunization by vaccines stimulates the production of antibodies in the body against infectious agents.

  Proper vaccination has successfully controlled such infectious diseases as smallpox.

- **Public health education**

  Public health is the protection and betterment of society's health by community effort. It involves not only doctors and nurses but also sanitary engineers, veterinarians, industrial chemists, microbiologists, and educators.

  Programs of health education in schools and specialized organizations (e.g., the World Health Organization) help encourage the public to take action to improve individual health, as well as the health of the community as a whole.

  The public should receive proper health education to decrease the incidence of infectious disease.

- **Control of patient, contacts, and the immediate environment**

  Measures should be taken to control the spread of the disease from the infected individual to other persons.

  Isolation of the patient, quarantine of the contacts and premises, and disinfection can prevent further spread of the disease.

  Finding the original source of the diseases and the tracing and follow-up of contacts of known cases, such as gonorrhea or typhoid, can also help slow the progression of the disease.

OBJECTIVE 5

Match diseases with the corresponding category.

Community-acquired infectious diseases are grouped into five biological categories: bacterial diseases, viral diseases, rickettsial diseases, helminthic infestations, and protozoal diseases.

Bacterial Diseases
- Chlamydia
- Gangrene
- Gonorrhea
- Legionnaire's disease
- Meningococcal meningitis
- Pulmonary tuberculosis
- Rheumatic fever
- Salmonella
- Scarlet fever
- Shigellosis
- Streptococcal sore throat (strep throat)
- Syphilis
- Toxic Shock Syndrome
- Typhoid fever

Viral Diseases
- Acquired Immune Deficiency Syndrome (AIDS)
- Fifth disease (erythema nodosum)
- Hepatitis
- Herpes simplex (cold sores, fever blisters)
- Herpes vaginalis
- Herpes zoster
- Infectious mononucleosis
- Influenza
- Parotitis (mumps)
- Poliomyelitis
- Rabies
- Rubella (German measles)
- Rubeola (measles or red measles)
- Viral encephalitis
- Viral meningitis
- Varicella (chickenpox)

Rickettsial Diseases
- Lyme disease
- Rocky Mountain Spotted Fever
- Typhus

Helminthic Infestation
- Trichinosis (nematoda)
- Schistosomiasis (platyhelminthes)

Protozoal Diseases
- Amebiasis (amebic dysentery)
- Malaria

OBJECTIVE 6

Select true statements about definitions of community-acquired infectious diseases.

Community-acquired infectious diseases have unique symptoms and treatments the nurse should know.

Bacterial Diseases

- **Chlamydia** is a sexually transmitted infection of the urethra, vagina, cervix, uterus, fallopian tubes, anus, ovaries, or epididymis. Chlamydia infection may also be transmitted from infected mothers to the eyes and lungs of newborns.

- **Gangrene** results from a clostridial wound infection causing progressive myonecrosis. Infection develops hours or days after injury occurs, usually in an extremity, after severe crushing or penetrating trauma. Similar infection may occur in operative wounds, especially in patients with an underlying occlusive vascular disease.

- **Gonorrhea** is a sexually transmitted disease of the epithelium of the urethra, cervix, rectum, pharynx, or eyes, and can be passed from mother to fetus.

- **Legionnaire's disease** is a lung infection that affects the bronchial tubes and lungs (bronchopneumonia).

- **Meningococcal meningitis** is an inflammation of the coverings of the brain and spinal cord caused by Neisseria meningitidis.

- **Pulmonary tuberculosis** is a chronic infection process acquired by inhaling a dried-droplet nucleus containing a human tubercle bacillus into the alveolar structure of the lung.

- **Rheumatic fever** is an inflammatory disease of the heart, joints, central nervous system, and subcutaneous tissue that develops after a throat infection with group A streptococci.

- **Salmonella infection** is a form of food poisoning caused by germs in the salmonella family, affecting the gastrointestinal tract and the lymphatic system.

- **Scarlet fever** is a streptococcal infection characterized by a skin rash over the arms, legs, or torso.

- **Shigellosis** is a bacterial disease of the intestinal tract, primarily associated with the terminal ileum (lower small intestine), colon (large intestine), and rectum, causing diarrhea and severe dysentery.

- **Streptococcal sore throat** (Strep throat) is a pharyngeal and tonsillar infection, characterized by an acute onset of soreness on swallowing, fever, and headache.

- **Syphilis**, a sexually transmitted disease, can affect any tissue or vascular organ of the body and can be passed from mother to fetus (congenital syphilis).

- **Toxic Shock Syndrome** is a form of blood poisoning caused by toxins released by staphylococcal bacteria.

- **Typhoid fever** is caused by Salmonella typhi, one type of salmonella, and affects the gastrointestinal tract.

Viral Diseases

- **Acquired Immune Deficiency Syndrome** (AIDS) is a failure of the body's immune system.

- **Fifth disease** (erythema nodosum) is an inflammatory eruption of the dermis that may produce lesions of the skin or mucous membranes. There is no cure for Fifth disease at this time.

- **Hepatitis** is an acute communicable liver disease.

  NOTE: Hepatitis A and B are the most common types of this disease. Recent studies show three new kinds of hepatitis: Hepatitis C, D, and E (See Student Supplement for more information on Hepatitis C, D, and E.)

- **Herpes simplex** (cold sores, fever blisters) is a common, contagious viral infection. Symptoms include the development of groups of vesicles in the skin and mucous membrane. The virus affects the mouth, lips, genitalia, skin, eyes, and, sometimes, the central nervous system and visceral organs. The virus is transmitted through kissing and sexual relations.

- **Herpes vaginalis** is an infection of the genital and anorectal skin and mucosa, usually with herpes simplex virus. Herpes vaginalis may increase the risk of cervical cancer.

- **Herpes zoster** (shingles) is an acute skin eruption consisting of small yellow vesicles that spread over an area, dry up, and heal by scabbing. The disease is contagious to persons who have not had chickenpox. A patient usually acquires immunity to herpes zoster after its first attack.

- **Infectious mononucleosis** (mono, or glandular fever) is an infectious viral disease that affects the respiratory system, liver, and lymphatic system.

- **Influenza** (flu) is a common, contagious respiratory infection.

- **Mumps** (parotitis) is an infectious disease characterized by the inflammatory swelling of the salivary glands.

- **Poliomyelitis** is an infectious disease involving the spinal cord and the brain.

- **Rabies** is an acute viral disease that primarily affects animals and can be transmitted to human beings from rabid animals.

- **Rubella** (German measles) is a mild, contagious, and highly communicable viral illness characterized by a short duration. Symptoms include mild upper respiratory tract manifestations, lymphadenitis, and a reddish rash.

- **Rubeola** (measles or red measles) is an acute, infectious, highly communicable viral illness. Symptoms are inflammation of mucous membranes, especially of the nose and throat, Koplik's spots, and a typical rash. Rubeola occurs mostly in children.

- **Varicella** (chickenpox) is a highly contagious disease. Symptoms include a vesicular rash (a fluid-filled blister formed under the skin). The disease affects all ages, particularly children.

- **Viral encephalitis** is the inflammation of the brain.

- **Viral meningitis** is the inflammation of the meninges.

Rickettsial Diseases

- **Lyme disease** is an inflammatory disorder that first appears as a skin rash. It is caused by a tick bite. The rash may be followed (in weeks or months) by symptoms affecting the central nervous system, cardiovascular system, and joints.

- **Rocky Mountain Spotted Fever** (tick fever) is caused by Rickettsia rickettsii transmitted to people by infected ticks. This disease is not contagious from person to person.

- **Typhus fever** is a disease that can be transmitted by fleas, lice, and mites.

Helminthic Infestation

This infestaion is an invasion of parasitic worms in tissues or organs.

- **Nematoda** is a class of parasitic roundworms. An example of a nematode is trichinella. Trichinella spiralis is a small worm (about one-eighth of an inch) that causes ***trichinosis***. The patient contracts the disease by eating undercooked pork from pigs that have been infected with the worm.

- **Platyhelminthes** are flatworms which may be acquired by wading or swimming in fresh water contaminated by infected human feces. An example of a disease caused by platyhelminthes is ***schistosomiasis***.

Protozoal Diseases

- **Amebiasis** (amebic dysentery) is a parasitic infection of the large intestine and sometimes the liver.

- **Malaria** is a parasitic infection involving red blood cells, blood vessels, the liver, and the central nervous system.

HEPATITIS C, D, AND E

DISEASE	**Hepatitis C**
MODE	• Contact transmission (contaminated blood and plasma)
SYMPTOMS	• 2-week to 6-month incubation • Onset is sudden • Anorexia • Abdominal discomfort • Nausea • Vomiting • Jaundice (but less frequently than Hepatitis B) • Chronic HC may progress to cirrhosis
TREATMENT	• Have patients use separate eating utensils • Have patients remain in bed when jaundice occurs • The patient may need to be isolated • Exercise universal precautions
EDUCATION	• The most common post-transfusion hepatitis, accounting for 15-40% of community-acquired hepatitis cases. • Instruct patients to avoid sexual contact while infected. • Instruct patients receiving blood products in disease symptoms and to see a doctor immediately if symptoms manifest.
DISEASE	**Hepatitis D**
MODE	• Common-vehicle transmission (requires co-infection with Hepatitis B to undergo a complete replication cycle)
SYMPTOMS	• 2-10 weeks incubation • Onset is sudden • Symptoms resemble Hepatitis B • May progress to chronic hepatitis
TREATMENT	• Have patients use separate eating utensils. • Have patients remain in bed when jaundice occurs. • The patient may need to be isolated. • Exercise universal precautions.
EDUCATION	• Instruct patients to avoid sexual contact while infected. • Instruct patients receiving blood products in disease symptoms and to see a doctor immediately if symptoms manifest.

DISEASE	Hepatitis E
MODE	• Common-vehicle transmission (water borne)
SYMPTOMS	• 15-64 days incubation • Symptoms are similar to Hepatitis A • No evidence of a chronic form • Fatality rate similar to HA, except in third-trimester pregnancy where fatality rate is as high as 20%
TREATMENT	• Isolate patients. • Disinfect or dispose of all contacts (i.e., eating utensils, sheets). • Same as for Hepatitis A
EDUCATION	• Instruct patients to report infection to local health authority. • Instruct patients and family to avoid fecal-oral route contamination. • Instruct patients to drink purified water. • Advise patients to keep living conditions sanitary. • Advise patients that the effectiveness of immunization has not been established

ASSIGNMENT SHEET 1

Development of:
READING SKILLS
SCIENCE SKILLS
CREATIVE THINKING/PROBLEM SOLVING SKILLS

- Introduce the assignment to the students by discussing why reading, writing, and creative thinking/problem solving skills are important.

- Discuss with them the following skills which are relevant to this task:

  READING

  - Using standard references

  SCIENCE

  - Investigating health issues

  CREATIVE THINKING/PROBLEM SOLVING

  - Creating a finished product

  - Applying intuitive thinking techniques

- Emphasize to the students that criteria for grading their assignment will include all of the following:

  1. Sufficient research
  2. Accurate information
  3. Presentation clear and appropriate to the specific audience
  4. Correct spelling, grammar and punctuation/ composition, and design/video techniques
  5. Creativity
  6. Neatness

- If students have difficulty using standard references:

  - Review the guidelines.

  - Discuss the fact that each standard reference provides a specific type of information.

  - Have several students read specific sections and interpret them for the class, using examples to illustrate the guidelines.

- If students have difficulty investigating health issues:
  - Refer them to general texts, magazines, videotapes covering information about community acquired infectious diseases and immunizations and to individuals who can act as resources.
  - Encourage them to use current information through the *Reader's Guide to Periodic Literature* and other general or scientific resources.
- If students have difficulty creating a finished product:
  - Review the information.
  - Instruct them to examine the goals of the assignment.
  - Suggest that they write a plan for attaining their goal.
  - Instruct them to work one step at a time until the project is finished.
- If students have difficulty applying intuitive thinking techniques:
  - Remind them that one idea stimulates another, and they should keep going without judging or criticizing their ideas.
  - Encourage them to trust their own informed thinking.
  - Remind them that when working with others, all ideas are potential winners and should be respected and accepted.
  - Get students involved in idea-sharing by using a creativity-enhancing exercise, such as listing all the uses for a clothespin. Other ideas for activities and exercises can be found in books on creativity or creative thinking.

    NOTE: *A Whack on the Side of the Head: How to Unlock Your Mind for Innovation* is a creativity activity book by Roger Von Oech and published by Warner Books, New York, 1983. Includes games, illustrations, exercises, and self-evaluation tests.

ASSIGNMENT SHEET 2

Development of:
READING SKILLS
SCIENCE SKILLS
CREATIVE THINKING/PROBLEM SOLVING SKILLS

- Introduce the assignment to the students by discussing why reading, science, and creative thinking/problem solving skills are important.
- Discuss with them the following skills which are relevant to this task:

  READING

  - Using in-book references
  - Interpreting graphics and symbols

  SCIENCE

  - Investigating health issues

  CREATIVE THINKING/PROBLEM SOLVING

  - Creating a finished product
  - Applying intuitive thinking techniques
- If students have difficulty using in-book reference tools:
  - Identify the content of the supplement and have students discuss how the information can be used to complete the assignment sheet.
  - Encourage students to use bookmarks or other devices to mark in-book references used most often.
  - Explain to students that books are "random access" tools, meaning the information in them is accessible in any order. Compare books to items which are not random access such as cassette tapes or video films.
  - Review terms used in the supplement.
- For additional suggestions on teaching basic skills, refer to suggestions for Assignment Sheet 1.

ASSIGNMENT SHEET 3

Development of:
SCIENCE SKILLS
CREATIVE THINKING/PROBLEM SOLVING SKILLS

- Introduce the assignment to the students by discussing why science and creative thinking/problem solving skills are important.

- Discuss with them the following skills which are relevant to this task:

  SCIENCE

  - Investigating health issues

  CREATIVE THINKING/PROBLEM SOLVING

  - Analyzing/synthesizing information
  - Drawing conclusions
  - Creating a finished product

- If students have difficulty analyzing/synthesizing information:

  - Remind them that to analyze information, they must break the information down into all its components in order to understand it.
  - Remind them that to synthesize information, they should put all the components together in a way that makes the information usable.

- If students have difficulty drawing conclusions:

  - Direct them to examine the collected data and look for patterns.
  - Encourage them to combine the current information with prior information about the disease.
  - Suggest they look at examples of other care plans and compare the information and the conclusions.

- For additional suggestions on teaching basic skills, refer to suggestions for Assignment Sheets 1 and 2.

ASSIGNMENT SHEET 1

PROVIDING CARE FOR PATIENTS WITH COMMUNITY-ACQUIRED INFECTIOUS DISEASES

II

Name ______________________________ Score __________

OBJECTIVE 7 **Promote public education on the importance of immunizations.**

DIRECTIONS Using HOSA competitive guidelines, create a public education brochure, skit, poster, video, or other creative activity on the importance of immunizations.

Research and Reference Skills
- Use standard references

Life Science Skills
- Investigate health issues

Cognitive Activities Skills
- Create a finished product
- Apply intuitive thinking techniques

EVALUATIVE CRITERIA TABLE FOR ASSIGNMENT SHEET 1

1. Sufficient research	30 points
2. Accurate information	30 points
3. Presentation clear and appropriate to the specific audience	10 points
4. Correct spelling, grammar and punctuation/ composition, and design/video techniques	10 points
5. Creativity	10 points
6. Neatness	10 points
Total	100 points

ASSIGNMENT SHEET 2

PROVIDING CARE FOR PATIENTS WITH COMMUNITY-ACQUIRED INFECTIOUS DISEASES

II

Name ______________________________ Score __________

OBJECTIVE 8

Formulate a teaching plan for a patient/client with an infectious disease.

INTRODUCTION

A patient is diagnosed by the doctor as having Hepatitis C, an inflammation of the liver caused by a virus contracted through contaminated blood and plasma.

DIRECTIONS

Using the Student Supplement as a reference, formulate a teaching plan for this patient and/or family so that he/she may take the appropriate measures to help prevent spread of the infection and can avoid being infected in the future.

Teaching Plan Check List

- Subject matter
- Visual aids to be used
- Outline of information to be used
- Evaluation of patient's receptiveness
- Procedures to demonstrate

Research and Reference Skills
- Use in-book reference tools

Life Science Skills
- Investigate health issues

Cognitive Activities Skills
- Create a finished product
- Apply intuitive thinking techniques

BEST COPY AVAILABLE

ASSIGNMENT SHEET 3

PROVIDING CARE FOR PATIENTS WITH COMMUNITY-ACQUIRED INFECTIOUS DISEASES

II

Name ______________________________ Score __________

OBJECTIVE 9 **Develop a plan of care for a patient/client with a community-acquired infectious disease.**

INTRODUCTION Nurses need to know how to develop a plan of care for patients with many infectious diseases, as some diseases require lengthy periods of care and treatment.

DIRECTIONS Develop a plan of care for a patient who has shown the symptoms of Rocky Mountain Spotted Fever. Describe nursing interventions the patient needs to overcome the infection.

Life Science Skills
- Investigate health issues

Cognitive Activities Skills
- Analyze/synthesize information
- Draw conclusions
- Create a finished product

The patient has provided you with the following history:

The patient was working in the yard 5 to 6 days ago. After completing the yard work, the patient went to take a shower and discovered a tick embedded in the skin above the ankle. The patient removed the tick with a pair of tweezers, applied rubbing alcohol to the bite, and took a shower.

The following information on Rocky Mountain Spotted Fever is provided to help you develop a plan of care:

Rocky Mountain Spotted Fever: Rickettsia rickettsii

Etiology: Vectorborne transmission (ticks)

Prevention Education:
- Advise patients to wear protective clothing when outdoors.
- Advise patients to use effective insect repellants in areas with ticks.

Symptoms:
- 2-14 day incubation
- Headache
- Appetite loss
- High fever
- Chilly sensation
- Nausea and vomiting
- Characteristic rash on the wrists and ankles, and then other body parts, such as the face, palms, and soles
- Bright red lesions
- Rash fades as fever subsides
- Lesions may leave pigmented spots for weeks or months
- Mortality low in children and high in adults and the elderly

Treatment:
- Administer prescribed antibiotics
- Provide supportive treatment

Treatment Education:
- Instruct patients to enforce bedrest until fever and other symptoms disappear.
- Instruct patients to watch for possible infections during outdoor activities.
- Instruct patients in proper removal of imbedded ticks.
- Instruct patients to watch for symptoms if they are bitten by a tick. Tell them to seek immediate treatment if any symptoms manifest.

BEST COPY AVAILABLE

ASSIGNMENT ANSWERS

PROVIDING CARE FOR PATIENTS WITH COMMUNITY-ACQUIRED INFECTIOUS DISEASES

II

ASSIGNMENT SHEET 1

Answers may vary according to student and chosen format. Instructor should evaluate student's responses to Objective 7 using the appropriate HOSA guidelines.

ASSIGNMENT SHEET 2

Answers may vary according to student but should contain the following information:

- **Subject Matter:** Hepatitis C, the most common post-tranfusion type of hepatitis.
- **Visual Aids:** Student may use published or created posters, videos, books, diagrams, etc., as appropriate for patient teaching.
- **Outline:** Student should outline plan of presentation of information on symptoms, treatment, and patient education about Hepatitis C as explained in Student Supplement.
- **Evaluation of Receptiveness:** Answers may vary according to student, but proper demonstrations are proper disposal, disinfection, and/or segregation of eating utensils to avoid spread of disease.

ASSIGNMENT SHEET 3

Answers may vary according to student but should contain the following information provided in Assignment Sheet:

- **Etiology:** Identify symptoms as possible Rocky Mountain Spotted Fever.
- **Planning:** Plan interventions for the symptoms detailed in the Assignment Sheet.
- **Treatment:** Plan treatment for bed rest, administration of prescribed antibiotics, and supportive therapy.
- **Education:** Plan patient education for possible infections, proper removal of imbedded ticks, and disease symptoms and complications.
- **Evaluation:** Plan for evaluation of interventions.

WRITTEN TEST

PROVIDING CARE FOR PATIENTS WITH COMMUNITY-ACQUIRED INFECTIOUS DISEASES

II

Name ______________________________ Score __________

OBJECTIVE 1

Match terms associated with community-acquired infectious diseases to their correct definitions. Write the correct letters in the blanks.

_____ 1. A substance in the blood which destroys or neutralizes various toxins

_____ 2. The organism that causes a disease

_____ 3. The period between the time when a person becomes infected by an agent and the first occurrence of the symptoms of the disease

_____ 4. A poisonous substance produced by some plants, animals, and pathogenic bacteria

_____ 5. An animal or plant upon which another organism lives parasitically

_____ 6. Invasion of the tissues of a host by organisms

_____ 7. Invasion of the body by a parasitic worm

_____ 8. The ability of human beings to resist or overcome infection

_____ 9. An infection which causes no symptoms

_____ 10. A substance that stimulates body cells to produce antibodies specific in their action against the antigen

a. agent

b. antibody

c. antigen

d. host

e. immunity

f. incubation

g. infection

h. infestation

i. subclinical infection

j. toxin

May be photocopied for student use.

OBJECTIVE 2

Select true statements about characteristics of community-acquired infectious diseases. Write an "X" in the blank before each true statement.

_____ 1. A person who becomes infected with a disease always shows its symptoms.

_____ 2. Common infectious organisms are bacteria, viruses, and protozoans.

_____ 3. The size of a bacterium is greater than that of a virus.

_____ 4. Clotting of blood can completely block infectious organisms from entering the body from the skin.

_____ 5. Diplococci occur in pairs.

_____ 6. A healthy person may transmit a disease.

_____ 7. Helminths are invisible under the microscope.

_____ 8. The red blood cells can destroy infectious agents.

OBJECTIVE 3

Distinguish among modes of transmission. Write the correct letters in the blanks.

Part I

_____ 1. A transmission of disease in which a fly transfers enteric organisms to food is called

a. droplet spread
b. contact transmission
c. airborne transmission
d. vectorborne transmission

_____ 2. Which of the following diseases has the same mode of transmission as streptococcal sore throat?

a. typhoid fever
b. salmonellosis
c. scarlet fever
d. shigellosis

_____ 3. Pulmonary tuberculosis is transmitted through

a. common-vehicle transmission
b. contact transmission
c. airborne transmission
d. vectorborne transmission

May be photocopied for student use.

_____ 4. Syphilis is transmitted through

a. common-vehicle transmission
b. contact transmission
c. airborne transmission
d. vectorborne transmission

_____ 5. Transmission of a disease through a fomite is an example of

a. common-vehicle transmission
b. contact transmission
c. airborne transmission
d. vectorborne transmission

Part II

_____ 1. Milkborne outbreaks of staphylococcal disease are examples of

a. common-vehicle transmission
b. contact transmission
c. airborne transmission
d. vectorborne transmission

_____ 2. The form of transmission in which an infectious agent brings organisms from a source into contact with susceptible hosts is called

a. common-vehicle transmission
b. contact transmission
c. airborne transmission
d. vectorborne transmission

_____ 3. Gonorrhea is transmitted through

a. common-vehicle transmission
b. vectorborne transmission
c. contact transmission
d. airborne transmission

_____ 4. Legionnaire's disease is spread through

a. common-vehicle transmission
b. contact transmission
c. airborne transmission
d. vectorborne transmission

May be photocopied for student use.

OBJECTIVE 4

Discuss methods of communicable disease control. Discuss any three methods to control communicable diseases.

OBJECTIVE 5

Match diseases with the corresponding category. In the blanks, write a "B" for bacterial diseases, a "V" for viral diseases, an "R" for rickettsial diseases, an "H" for helminthic infestation, or a "P" for protozoal diseases.

Part I

_____ 1. Shigellosis

_____ 2. Typhus

_____ 3. Parotitis

_____ 4. Trichinosis

_____ 5. Varicella

_____ 6. Legionnaire's disease

_____ 7. Fifth disease

_____ 8. Amebiasis

_____ 9. Typhoid fever

_____ 10. Rabies

May be photocopied for student use.

Part II

_____ 1. Herpes zoster
_____ 2. Gonorrhea
_____ 3. Rocky Mountain Spotted Fever
_____ 4. AIDS
_____ 5. Malaria
_____ 6. Chlamydia
_____ 7. Influenza
_____ 8. Schistosomiasis
_____ 9. Lyme disease
_____ 10. Hepatitis

Part III

_____ 1. Toxic Shock Syndrome
_____ 2. Herpes simplex
_____ 3. Rheumatic fever
_____ 4. Gangrene
_____ 5. Rubella
_____ 6. Poliomyelitis
_____ 7. Infectious mononucleosis
_____ 8. Meningococcal meningitis
_____ 9. Salmonella
_____ 10. Syphilis

May be photocopied for student use.

Part IV

_____ 1. Pulmonary tuberculosis

_____ 2. Rubeola

_____ 3. Viral meningitis

_____ 4. Scarlet fever

_____ 5. Herpes vaginalis

_____ 6. Streptococcal sore throat

_____ 7. Viral encephalitis

OBJECTIVE 6

Select true statements about definitions of community-acquired infectious diseases. Write an "X" in the blank before each true statement.

Part I

_____ 1. Scarlet fever is an infection characterized by a skin rash.

_____ 2. Rubella is also known as German measles.

_____ 3. Legionnaire's disease is an inflammation of the coverings of the brain and spinal cord.

_____ 4. Shigellosis does not cause dysentery.

_____ 5. Rocky Mountain Spotted Fever is also called tick fever.

_____ 6. Rubeola occurs mostly in children.

_____ 7. Fifth disease is an inflammatory eruption of the dermis.

Part II

_____ 1. Gonorrhea is a sexually transmitted disease of the epithelium of the urethra, cervix, or rectum.

_____ 2. Salmonellosis is a food poisoning which affects the gastrointestinal tract and the lymphatic system.

_____ 3. Most patients acquire immunity from herpes zoster after its first attack.

_____ 4. Rocky Mountain Spotted Fever is transmitted to a person by a mosquito bite.

May be photocopied for student use.

_____ 5. Herpes simplex is characterized by the formation of vesicles in the skin and mucous membrane.

_____ 6. Amebiasis affects the intestinal tract.

_____ 7. Smallpox is also known as varicella.

_____ 8. Chlamydia is sexually transmitted.

Part III

_____ 1. Rocky Mountain Spotted Fever is usually transmitted to a person by mites.

_____ 2. Malaria is transmitted through contaminated food.

_____ 3. Typhus fever is transmitted through different routes, such as flea-borne and mite-borne.

_____ 4. Amebiasis affects the large intestine.

_____ 5. A nematode is a flatworm.

_____ 6. Trichinosis is caused by eating underdone pork from pigs that have been infected with trichinella.

_____ 7. Herpes vaginalis may increase risk of cervical cancer.

Part IV

_____ 1. Toxic Shock Syndrome is a form of blood poisoning.

_____ 2. Amebiasis is a viral infection of the respiratory system.

_____ 3. Rabies is an acute viral disease that affects animals and can be transmitted to people.

_____ 4. Gangrene is caused by wound infections.

_____ 5. Meningococcal meningitis is a lung infection which affects bronchial tubes and lungs.

_____ 6. Syphilis can be transmitted from mother to fetus.

_____ 7. Lyme disease is transmitted through tick bites.

May be photocopied for student use.

Part V

_____ 1. Parotitis may affect the salivary glands.

_____ 2. Malaria is caused by a parasitic organism.

_____ 3. Shigellosis is an infection that affects the ileum, colon, and rectum.

_____ 4. Infectious mononucleosis is a bacterial disease affecting the lymphatic system.

_____ 5. Hepatitis is an acute communicable respiratory infection.

_____ 6. Acquired Immune Deficiency Syndrome is a disease that causes a person to be defenseless against illnesses.

_____ 7. A nematode is a class of parasitic flat worms.

Part VI

_____ 1. Meningococcal meningitis is the inflammation of the thin membranes covering the brain and spinal cord.

_____ 2. Rocky Mountain Spotted Fever is a fever transmitted by infected ticks that is not contagious person-to-person.

_____ 3. Typhus fever is transmitted through the airborne route.

_____ 4. Amebiasis is a parasitic infection.

_____ 5. Platyhelminthes is a class of round worms.

NOTICE: Objectives 7-9 are evaluated on assignments sheets in this unit. If you have not completed these components, see your instructor.

May be photocopied for student use

WRITTEN TEST ANSWERS

PROVIDING CARE FOR PATIENTS WITH COMMUNITY-ACQUIRED INFECTIOUS DISEASES II

OBJECTIVE 1

1.	b	6.	g
2.	a	7.	h
3.	f	8.	e
4.	j	9.	i
5.	d	10.	c

OBJECTIVE 2

2, 5, 6

OBJECTIVE 3

Part I		Part II	
1.	d	1.	a
2.	c	2.	a
3.	c	3.	c
4.	b	4.	c
5.	b		

OBJECTIVE 4

Student's answer should include discussion of any three of the four methods: legislative action; immunization; public health education; control of patient, contacts, and the immediate environment.

OBJECTIVE 5

Part I	**Part II**	**Part III**	**Part IV**
1. B	1. V	1. B	1. B
2. R	2. B	2. V	2. V
3. V	3. R	3. B	3. V
4. H	4. V	4. B	4. B
5. V	5. P	5. V	5. V
6. B	6. B	6. V	6. B
7. V	7. V	7. V	7. V
8. P	8. H	8. B	
9. B	9. R	9. B	
10. V	10. V	10. B	

OBJECTIVE 6

Part I: 1, 2, 5, 6, 7

Part II: 1, 2, 3, 5, 6, 8

Part III: 3, 4, 6, 7

Part IV: 1, 3, 4, 6, 7

Part V: 1, 2, 3, 6

Part VI: 1, 2, 4

OBJECTIVE SHEET

PROVIDING CARE FOR PATIENTS WITH COMMON MEDICAL-SURGICAL COMPLICATIONS

III

INTRODUCTION

The nursing process is directed toward helping the patient reestablish his or her health status and prevent complications. The nurse is responsible for preventing and managing possible complications that hinder the patient's recovery.

UNIT OBJECTIVE

After completing this unit, the student will be able to identify common complications: shock, hemorrhage, pulmonary embolism, fluid imbalance, infections, thrombophlebitis, and inflammation. Students will learn their role in the prevention and management of common complications. The student will demonstrate these competencies by completing the assignment sheets and written test with a minimum of 85 percent accuracy.

PREREQUISITES

"Applying Basic Principles of Medical-Surgical Care"
"Providing Care for Patients with Community-Acquired Infectious Diseases"

SPECIFIC OBJECTIVES

After completing this unit, the student will be able to:

1. Match terms associated with common medical-surgical complications to their correct definitions.

2. Choose the correct word or phrase to complete statements about shock, including etiology, signs and symptoms, medical treatment, and the application of the nursing process to patients with shock.

3. Choose the correct word or phrase to complete statements about hemorrhage, including etiology, signs and symptoms, medical treatment, and the application of the nursing process to patients with hemorrhage.

4. Choose the correct word or phrase to complete statements about pulmonary embolism, including etiology, signs and symptoms, medical treatment, and the application of the nursing process to patients with pulmonary embolism.

5. Choose the correct word or phrase to complete statements about fluid imbalance, including etiology, signs and symptoms, medical treatment, and the application of the nursing process to patients with fluid imbalance.

6. Choose the correct word or phrase to complete statements about infections, including etiology, signs and symptoms, medical treatment, and the application of the nursing process to patients with infections.

7. Choose the correct word or phrase to complete statements about thrombophlebitis, including etiology, signs and symptoms, medical treatment, and the application of the nursing process to patients with thrombophlebitis.

8. Choose the correct word or phrase to complete statements about inflammation, including etiology, signs and symptoms, medical treatment, and the application of the nursing process to patients with inflammation.

9. Plan appropriate interventions to maintain fluid balance or to correct imbalance. (Assignment Sheet 1).

10. Prioritize nursing interventions based on assessment of complications. (Assignment Sheet 2).

PREPARATION

- Review the unit and plan your presentation.
- Determine the scope and sequence of objectives you add. Design and develop support materials, including evaluation techniques for additional objectives.
- Review teaching suggestions and plan classroom activities.
- Determine how you will schedule time for students to demonstrate competence in the required procedures.
- Order materials to supplement unit.
- Order films and videos.
- Invite a guest speaker to discuss medical-surgical care.

  NOTE: Please provide the guest speaker with the specific topic relevant to the unit of instruction ahead of time. You may want to supply the objective sheet, information sheet, and any other components you want the speaker to cover. Confirm the scheduled appearance two to three days prior to the presentation.
- Arrange for students to visit a local hospital to observe symptoms and interventions for common medical-surgical complications.
- Make transparencies.
- **HOSA** Integration
  - Assist students in conducting a chapter service project on the importance of medical-surgical care.
  - Develop objectives for the service project and identify a theme.
  - Have students prepare a three-minute speech on a specific topic of medical-surgical care and present before the class using the HOSA guidelines for public speaking.
  - Create a poster according to Extemporaneous Health Display rules. Display in highly visible areas.

  - Plan community or school health projects that involve disseminating pamphlets about medical-surgical care.

DELIVERY

- Discuss unit and specific objectives.

- Encourage students to use computer software, if computers are available.

- Devise games and/or crossword puzzles to reinforce terms.

Objective 1: Match terms associated with common medical-surgical complications to their correct definitions.

- Discuss terms associated with common medical-surgical complications.

- Have students play reinforcement games and work crossword puzzles using terms.

Objective 2: Choose the correct word or phrase to complete statements about shock, including etiology, signs and symptoms, medical treatment, and the application of the nursing process to patients with shock.

- Have students role-play nurses and patients. Nurses should place patients in the correct shock position.

- Have students play reinforcement games in which they must distinguish between the types of shock and the specific signs and symptoms, medical treatment, planning and interventions, and evaluation.

Objective 3: Choose the correct word or phrase to complete statements about hemorrhage, including etiology, signs and symptoms, medical treatment, and the application of the nursing process to patients with hemorrhage.

- Have students discuss any previous experiences with hemorrhage.

- Have students quiz one another over etiology, signs and symptoms, medical treatment, planning and interventions, and evaluation.

Objective 4: Choose the correct word or phrase to complete statements about pulmonary embolism, including etiology, signs and symptoms, medical treatment, and the application of the nursing process to patients with pulmonary embolism.

- Discuss with students various anticoagulant drugs and their effects and side effects.

- Show *Pulmonary Emboli.*

- Have students quiz one another over etiology, signs and symptoms, medical treatment, planning and interventions, and evaluation.

Objective 5: Choose the correct word or phrase to complete statements about fluid imbalance, including etiology, signs and symptoms, medical treatment, and the application of the nursing process to patients with fluid imbalance.

- Introduce students to various oral and IV fluids available for treatment of fluid deficit; discuss treatments for fluid excess.

- Show students an NG tube kit and demonstrate NG catheterization on a mannikin.

- Show appropriate parts of *Fluids and Electrolytes.*

- Have students play reinforcement games in which they must distinguish between the types of fluid imbalance and the specific etiologies, signs and symptoms, medical treatment, planning and interventions, and evaluation.

Objective 6: Choose the correct word or phrase to complete statements about infections, including etiology, signs and symptoms, medical treatment, and the application of the nursing process to patients with infections.

- Demonstrate and have students demonstrate correct aseptic techniques.

- Show *Septic Shock.*

- Have students play reinforcement games in which they must distinguish between the types of infections and the specific etiologies, signs and symptoms, medical treatment, planning and interventions, and evaluation.

Objective 7: Choose the correct word or phrase to complete statements about thrombophlebitis, including etiology, signs and symptoms, medical treatment, and the application of the nursing process to patients with thrombophlebitis.

- Demonstrate the placement and maintenance of antiembolism stockings.
- Demonstrate and discuss the safety precautions for applying heat.
- Have students quiz one another over etiology, signs and symptoms, medical treatment, planning and interventions, and evaluation.

Objective 8: Choose the correct word or phrase to complete statements about inflammation, including etiology, signs and symptoms, medical treatment, and the application of the nursing process to patients with inflammation.

- Demonstrate the preparation, placement, and maintenance of warm, moist compresses.
- Demonstrate and discuss the safety precautions for applying heat.
- Have students quiz one another over etiology, signs and symptoms, medical treatment, planning and interventions, and evaluation.

APPLICATION

Objective 9: Plan appropriate interventions to maintain fluid balance or to correct imbalance.

- Have students complete Assignment Sheet 1 to plan appropriate interventions to maintain fluid balance or correct imbalance.

Objective 10: Prioritize nursing interventions based on assessment of complications.

- Have students complete Assignment Sheet 2 to prioritize nursing interventions based on assessment of complications.

EVALUATION

Pretest

- Give written test as pretest.
- Determine individual study requirements from pretest results.
- Counsel students individually on pretest results and study requirements.
- Modify materials in unit or create supplementary materials for individual students as required.

Written Test

- Explain to students that they will be asked on the written test to demonstrate actions listed in the specific objectives.
- Evaluate students on assignment sheet activities if not previously done.
- Give the written test.

  NOTE: The written test may be given in sections if desired.

- Reteach and retest if necessary.
- Complete the appropriate section of competency profiles.
- Review individual and group performance in order to evaluate teaching methods. Adjust scope, sequence, or instructional approaches for additional lessons as required.

SUGGESTED RESOURCES

Electronic Media

- *Pulmonary Emboli* (1986) (VHS, 21 min.)
- *Septic Shock* (1986) (VHS, 21 min.)

The above videos are available from:

Concept Media
P.O. Box 19542
Irvine, CA 92713
(800) 233-7078

- *Fluids and Electrolytes* (1990) (8 VHS videos, 30 min. each)

The above video is available from:

National Innovative Media Co.
Route #2, Box 301B
Calhoun, KY 42327
(800) 962-6662

Print Media

- Brunner, Lillian Sholtis and Doris Smith Suddarth. *Textbook of Medical-Surgical Nursing* (6th ed.). J. B. Lippincott Co.: Philadelphia, 1988.
- Kemp, Brenda, et al. *Fundamentals of Nursing: A Framework for Practice.* Scott, Foresman: Glenview, IL, 1989.
- Kozier, Barbara, et al. *Fundamentals of Nursing* (4th ed.). Addison-Wesley: Redwood, CA, 1989.
- Narrows, Barbara W. and Kay Burchi. *Fundamentals of Nursing Practice* (2nd ed.). Scott, Foresman: Glenview, IL, 1989.

UNIT REFERENCES

- Brunner, Lillian Sholtis and Doris Smith Suddarth. *Textbook of Medical-Surgical Nursing* (6th ed.). J. B. Lippincott Co.: Philadelphia, 1988.
- Kemp, Brenda, et al. *Fundamentals of Nursing: A Framework for Practice.* Scott, Foresman: Glenview, IL, 1989.
- Kozier, Barbara, et al. *Fundamentals of Nursing* (4th ed.). Addison-Wesley: Redwood, CA, 1989.
- Narrows, Barbara W. and Kay Burchi. *Fundamentals of Nursing Practice* (2nd ed.). Scott, Foresman: Glenview, IL, 1989.

OBJECTIVE 1

Match terms associated with common medical-surgical complications to their correct definitions.

- **asepsis** – a condition free from infection
- **cyanosis** – bluish discoloration of the skin
- **edema** – an excessive accumulation of serous fluid in the tissues
- **embolus** – a foreign body or air in the circulatory system (*emboli* is the plural form)
- **fluid imbalance** – the state in which water and its solutes in the body are in abnormal proportions and concentrations
- **hematoma** – a localized swelling filled with blood
- **hemoptysis** – coughing up of blood from the lungs or bronchial tubes
- **hemorrhage** – the loss of a large amount of blood from the bloodstream
- **hypoxia** – deficiency in the amount of oxygen reaching body tissues
- **infection** – a disease-state that results from the invasion and growth of micro-organisms in the body
- **inflammation** – a defensive response to injured tissues or cells
- **pulmonary embolism** – the blocking of an artery by a blood clot which is carried by blood flow and lodged in the lungs
- **stasis** – stagnation of a bodily fluid, such as blood
- **shock** – the body's reaction to severe circulatory failure
- **thrombophlebitis** – inflammation of the walls of the veins with formation of a clot
- **thrombosis** – the formation, presence, or development of a thrombus

- **thrombus** – a blood clot that causes vascular obstruction at the place of its formation
- **venoclysis** — intravenous infusion

OBJECTIVE 2

Choose the correct word or phrase to complete statements about shock, including etiology, signs and symptoms, medical treatment, and the application of the nursing process to patients with shock.

Etiology

Shock is the body's reaction to severe circulatory failure. The four common types of shock are

- **hypovolemic shock** — caused by decreased fluid volume due to loss of blood or plasma, or to prolonged diarrhea or vomiting.
- **cardiogenic shock** — caused by cardiac failure or an interference with heart function (e.g., poor heart pumping action).
- **neurogenic shock** — caused by pooling of blood in dilated vessels.
- **septic shock** — caused by infection or peritonitis.

Assessment of Signs and Symptoms

The four different kinds of shock share similar symptoms.

- Hypotension
- Cold, clammy skin (warm, flushed skin in neurogenic shock)
- Rapid, weak pulse (slow, weak pulse in neurogenic shock)
- Deep, rapid respirations
- Decreased urinary output
- Thirst
- Apprehension
- Changes in level of consciousness

Medical Treatment

The nurse assists the physician in carrying out the following treatments for shock:

- Administer fluids and/or blood products as prescribed.
- Administer oxygen therapy as prescribed.
- Administer various drugs prescribed for the patient.

Analysis

Report findings to an RN who will assimilate information for analysis and nursing care.

Planning and Implementation

The nurse is responsible for planning and implementing interventions to prevent or control shock.

Planning	Implementation
• Check doctor's orders	
• Check medication record	
• Collect equipment	
• Control or prevent	• Clear airway • Observe for bleeding • Control bleeding • Place patient in shock position • Keep patient warm • Use humidified oxygen as prescribed • Give oral or IV fluids as prescribed
• Prevent complications	• Assist patient with turning and deep breathing exercises • Practice strict aseptic techniques • Practice universal precautions • Reinforce dressings, if necessary • Change dressings per orders
• Manage pain	• Administer various drugs as prescribed
• Monitor patient's condition	• Assess patient's condition • Monitor vital signs • Monitor I and O
• Provide support	• Assure patient's safety • Keep patient's environment quiet

Evaluation

- Reassess patient's condition.
- Reassess vital signs.
- Evaluate effectiveness of medications.
- Evaluate effectiveness of fluid therapy.
- Reassess level of consciousness.
- Evaluate effectiveness of oxygen therapy.

OBJECTIVE 3

Choose the correct word or phrase to complete statements about hemorrhage, including etiology, signs and symptoms, medical treatment, and the application of the nursing process to patients with hemorrhage.

Etiology

Hemorrhage is an excessive blood loss due to the escape of blood from blood vessels. Hemorrhage may be external (visible) or internal (hidden).

Assessment of Signs and Symptoms

Internal and external hemorrhage share some signs that must be distinguished.

- **Common Signs and Symptoms**
  - Apprehension
  - Restlessness
  - Thirst
  - Cold, moist, pale skin
  - Reduced body temperature
  - Decreased blood pressure
  - Changes in level of consciousness
  - Shock
  - Decreased capillary refill

- **External Hemorrhage**
  - Bleeding from visible, external sources
  - Rapid, thready pulse
  - Deep, rapid respirations

- **Internal Hemorrhage**
  - Bleeding from hidden, internal sources
  - Distension and/or tenderness of soft tissues
  - Weak, irregular pulse

Medical Treatment

The nurse assists the physician in carrying out the following treatments for hemorrhage:

- Administer oxygen therapy as prescribed.
- Administer fluids and/or blood products as prescribed.

- Apply pressure dressings to external bleeding sites per orders.
- Administer various drugs prescribed for the patient.
- Prepare patient for return to operating room if hemorrhage cannot be controlled.

Analysis

Report findings to an RN who will assimilate information for analysis and nursing care.

Planning and Implementation

The nurse is responsible for planning and implementing interventions to prevent or control hemorrhage.

Planning	Implementation
• Check doctor's orders	
• Check medication record	
• Collect equipment	
• Promote healing	• Administer oxygen • Treat for shock • Observe for external bleeding • Observe for internal bleeding • Report internal hemorrhage immediately • Apply pressure dressing or external pressure to external bleeding site per orders • Give oral or IV fluids as prescribed
• Prevent complications	• Reinforce dressings, if necessary • Change dressings per orders • Practice strict aseptic techniques • Practice universal precautions
• Manage pain	• Administer medications as prescribed
• Monitor patient's condition	• Assess patient's condition • Monitor vital signs • Monitor I and O
• Provide support	• Assure patient's safety • Assure patient's privacy

Evaluation

- **External Hemorrhage**
  - Reassess patient's condition.
  - Reassess vital signs.
  - Reassess bleeding.
  - Reassess for shock.
  - Evaluate effectiveness of medications.
  - Evaluate effectiveness of fluid therapy.
  - Reassess level of consciousness.

- **Internal Hemorrhage**
  - Reassess patient's condition.
  - Reassess vital signs.
  - Reassess for shock.
  - Evaluate effectiveness of medications.
  - Evaluate effectiveness of fluid therapy.
  - Reassess level of consciousness.

OBJECTIVE 4

Choose the correct word or phrase to complete statements about pulmonary embolism, including etiology, signs and symptoms, medical treatment, and the application of the nursing process to patients with pulmonary embolism.

Etiology

Pulmonary embolism is a condition in which a blood clot or a fragment of the clot is carried by blood flow and lodges in the lungs. The complication may be caused by venous stasis as a result of prolonged bed rest or injury.

Assessment of Signs and Symptoms

Pulmonary embolism, whatever its cause, is detected by a set of recognizable signs and symptoms.

- Dyspnea
- Tachypnea
- Rapid pulse
- Cyanosis, pallor
- Sharp chest pain
- Rales
- Coughing
- Hemoptysis
- Anxiety

Medical Treatment

The nurse assists the physician in carrying out the following treatments for pulmonary embolism:

- Administer oral and IV fluids as prescribed.
- Administer anti-coagulant therapy as prescribed.
- Administer oxygen therapy as prescribed.

Analysis

Report findings to an RN who will assimilate information for analysis and nursing care.

Planning and Implementation

The nurse is responsible for planning and implementing interventions to prevent and control pulmonary embolism.

Planning	Implementation
• Check doctor's orders	
• Check medication record	
• Collect equipment	
• Promote healing	• Treat for shock • Administer anti-coagulant therapy as prescribed • Administer oxygen therapy as prescribed • Provide antiembolism stockings per orders • Elevate legs above level of heart
• Prevent complications	• Encourage fluid intake • Encourage exercises and activities to prevent venous stasis
• Monitor patient's condition	• Assess patient's condition • Monitor vital signs • Monitor I and O
• Provide support	• Assure patient's safety

Evaluation

- Reassess patient's condition.
- Reassess vital signs.
- Evaluate effectiveness of anti-coagulant therapy.
- Evaluate effectiveness of fluid therapy.
- Evaluate effectiveness of oxygen therapy.
- Evaluate effectiveness of elastic stockings.

OBJECTIVE 5

Choose the correct word or phrase to complete statements about fluid imbalance, including etiology, signs and symptoms, medical treatment, and the application of the nursing process to patients with fluid imbalance.

Etiology

Fluid imbalance refers to the state in which water and its solutes in the body are in abnormal proportions and concentrations. The two types of fluid imbalance are fluid deficit and fluid excess.

- **The Role of Sodium in Fluid Balance:** Extracellular fluid (ECF) volume is regulated by the total body sodium content. The total body sodium content is regulated by a balance between dietary intake and renal sodium excretion.

  An elevation of the serum sodium concentration above the normal range (136 - 145 mEq/L) indicates a deficit of total body water relative to sodium (*hypernatremia*). Hypernatremia generally results when total body water loss is greater (fluid deficit) than sodium excretion.

  A decrease in the serum sodium concentration below the normal range (135 - 145 mEq/L) indicates an excess of water relative to sodium (*hyponatremia*). Dilutional hyponatremia usually results from an excess of total body water (fluid excess), resulting in a low sodium concentration.

- **fluid deficit** — caused by a loss of body fluid resulting from one or more of several factors:

  — Increased perspiration
  — Increased mucus secretions in the lungs
  — Loss of blood
  — Prolonged vomiting
  — Prolonged diarrhea

- **fluid excess** — caused by over-hydration resulting from one or more of several factors:

  — Excessive antidiuretic hormone (ADH). ADH regulates fluid balance. The body produces excessive amounts of ADH under acute stress, such as surgery, trauma, pain, fear, infections, and administration of anesthetics.

  — Low renal blood flow. Low renal blood flow may be seen in congestive heart failure or acute renal insufficiency.

- Large amounts of water taken orally. Fluid excess may be seen especially in patients who drink liquids rather than eating solid foods.

- Large amounts of water given rectally as may occur in x-ray studies of the bowel.

Assessment of Signs and Symptoms

Fluid deficit and fluid excess are marked by specific sets of signs and symptoms.

- **Fluid Deficit**
  - Thirst (the first sign of fluid loss)
  - Dry skin with poor turgor
  - Dry lips
  - A dry, coated tongue
  - Sunken, soft eyeballs
  - Atonic muscles
  - Weight loss
  - Shrunken fontanel in babies
  - Electrolyte imbalance
  - In serious cases, anorexia, dyspepsia, and constipation occur.

- **Fluid Excess**
  - Edema
  - Confusion
  - Lack of coordination
  - Convulsions
  - Hyperventilation
  - Sudden weight gain
  - Warm, moist skin
  - Rales
  - As the condition continues, apathy, sleepiness, anorexia, nausea, vomiting, and coma may occur.

Medical Treatment

The nurse assists the physician in carrying out the following treatments for fluid imbalance:

- Administer oral or IV fluids, including blood products as prescribed.
- Administer various drugs prescribed for the patient.
- Administer patient's medical regimen as prescribed.

Analysis

Report findings to an RN who will assimilate information for analysis and nursing care.

Planning and Implementation

The nurse is responsible for planning and implementing interventions to prevent and control fluid imbalance.

Planning	Implementation
• Check doctor's orders	
• Check medication record	
• Collect equipment	
• Promote healing	• Maintain balanced I and O • Administer fluids through a nasogastric tube as prescribed • Increase food and fluid intake • Administer oral or IV fluids as prescribed • Administer medications as prescribed • Administer blood products IV as prescribed
• Prevent complications	• Monitor patient's weight daily • Administer patient's medical regimen as prescribed • Teach the patient to identify symptoms of fluid imbalance • Practice universal precautions
• Monitor patient's condition	• Assess patient's condition • Monitor vital signs • Monitor I and O
• Provide support	• Assure patient's safety • Help patients and families to understand the significance of maintaining fluid balance and preventing imbalances

Evaluation

- **Fluid Deficit**
  - Reassess patient's condition.
  - Reassess vital signs.
  - Reassess patient's thirst.
  - Reassess teachings.
  - Evaluate effectiveness of patient's medical regimen.
  - Evaluate effectiveness of fluid therapy.
  - Evaluate effectiveness of medications.
  - Evaluate nasogastric tube (if used for fluid therapy).

- **Fluid Excess**
  - Reassess patient's condition.
  - Reassess vital signs.
  - Reassess teachings.
  - Evaluate effectiveness of fluid therapy.
  - Evaluate effectiveness of medications.

OBJECTIVE 6

Choose the correct word or phrase to complete statements about infections, including etiology, signs and symptoms, medical treatment, and the application of the nursing process to patients with infections.

Etiology

Infection is a disease state that results from the invasion and growth of micro-organisms in the body. Common infections are

- **surgical wound infections** — caused by an invasion of micro-organisms into the site of the surgical wound

- **urinary-tract infections** — caused by the invasion of microorganisms into the urinary tract, often resulting in urinary retention. Contributing factors may be catheterization, an indwelling catheter, improper pericare, and/or hygiene. Sometimes urinary-tract infections are of unknown etiology.

- **respiratory-tract infections** — caused by an invasion of micro-organisms into the respiratory tract; may result from or be complicated by immobilization in bed

Assessment of Signs and Symptoms

The three most common types of infection each have specific signs and symptoms.

- **Surgical wound infections**
  - Increased pain
  - Redness, tenderness, warmth in wound area
  - Wound drainage
  - Foul-smelling drainage
  - Elevated temperature
  - Rapid pulse

- **Urinary-tract infections**
  - Elevated temperature, sometimes with chills
  - Dysuria
  - Frequent urination
  - Urgency to urinate
  - Cloudy urine
  - Burning sensation on urination
  - Voiding small amounts of urine

- **Respiratory-tract infections**
  - Elevated temperature and chills
  - Dyspnea
  - Tachypnea
  - Increased pulse rate
  - Cough with rusty or purulent sputum
  - Chest pains
  - Diaphoresis
  - Cyanosis
  - Restlessness
  - Apprehension
  - Tachycardia

Medical Treatment

The nurse assists the physician in carrying out the following treatments for infections:

- Administer prescribed antibiotics.
- Administer patient's prescribed medical regimen.
- Administer oral and IV fluids as prescribed.
- Administer oxygen therapy as prescribed.
- Administer expectorants and analgesics as prescribed.

Analysis

Report findings to an RN who will assimilate information for analysis and nursing care.

Planning and Implementation

The nurse is responsible for planning and implementing interventions to prevent and control infections.

Planning	Implementation
• Check doctor's orders	
• Check medication record	
• Collect equipment	
• Promote healing	• Administer prescribed antibiotics • Clean and irrigate the wound as prescribed • Administer oral and IV fluids as prescribed • Assist with repositioning patient every two hours • Administer oxygen therapy as prescribed • Administer expectorants and analgesics as prescribed • Assist patient with deep breathing and coughing exercises • Add humidity to inspired air
• Prevent complications	• Assist patient in maintaining good nutrition • Assist patient in maintaining fluid balance • Practice strict aseptic technique • Prevent spread of micro-organisms • Encourage fluid intake • Promote personal hygiene • Monitor and provide care for catheters • Practice universal precautions
• Manage pain	• Administer analgesics as prescribed
• Monitor patient's condition	• Assess patient's condition • Monitor vital signs • Monitor I and O
• Provide support	• Assure patient's safety • Keep patient clean, dry, warm • Provide emotional support

Evaluation

- Reassess patient's condition.
- Reassess vital signs.
- Evaluate effectiveness of medications.
- Evaluate effectiveness of oxygen therapy.
- Evaluate effectiveness of expectorants.
- Reassess color and amount of sputum.
- Evaluate effectiveness of deep breathing and coughing exercises.
- Evaluate catheter care (if appropriate).

OBJECTIVE 7

Choose the correct word or phrase to complete statements about thrombophlebitis, including etiology, signs and symptoms, medical treatment, and the application of the nursing process to patients with thrombophlebitis.

Etiology

Thrombophlebitis is inflammation of the walls of a vein with formation of a blood clot. Phlebothrombosis refers to a clot developing initially in the veins without inflammation.

Many factors may contribute to thrombophlebitis.

- **Injury to the interior lining (epithelium) of the vein** occurs with indwelling catheters, injection of irritating substances, and septic phlebitis.

- **Excessive and abnormal blood clotting (hypocoagulability)** is associated with malignant tumors, blood dyscrasia, and oral contraceptives.

- **Reduced or stopped blood flow (stasis)** occurs in postoperative and postpartum states and in prolonged bedrest because of any chronic illness, heart failure, stroke, or trauma.

Assessment of Signs and Symptoms

The nurse must recognize the following signs and symptoms of thrombophlebitis.

- Pain and cramping in the calf of the leg
- Painful swelling in the extremity, with edema
- Elevated temperature
- Redness and warmth in affected area
- Apprehension

Medical Treatment

The nurse assists the physician in carrying out the following treatments for thrombophlebitis:

- Provide anti-embolism or pneumatic hose as prescribed.
- Administer prescribed anti-coagulant therapy as prescribed.
- Administer analgesics as prescribed.
- Apply external heat to affected area, *only* if prescribed.

Analysis

Report findings to an RN who will assimilate information for analysis and nursing care.

Planning and Implementation

The nurse is responsible for planning and implementing interventions to prevent and control thrombophlebitis.

Planning	Implementation
• Check doctor's orders	
• Check medication record	
• Collect equipment	
• Promote healing	• Administer anti-coagulant therapy as prescribed • Enforce bed rest • Elevate the affected leg to the level of the heart • Avoid massaging or rubbing the legs • Apply external heat to affected areas, *only* if prescribed • Provide anti-embolism or pneumatic hose as prescribed
• Prevent complications	• Enforce bed rest • Elevate the affected leg to the level of the heart • Avoid massaging or rubbing the legs • Apply external heat to affected areas, *only* if prescribed • Provide anti-embolism or pneumatic hose as prescribed
• Manage pain	• Administer analgesics as prescribed

Monitor patient's condition	Assess patient's condition Monitor vital signs Assess the degree of swelling by comparing leg measurements Assess condition of anti-embolism or pneumatic hose
Provide support	Assure patient's safety Teach patient proper use and care of anti-embolism or pneumatic hose Provide emotional support

Evaluation

- Reassess patient's condition.
- Reassess vital signs.
- Evaluate effectiveness of anti-embolism or pneumatic hose.
- Evaluate effectiveness of anti-coagulant therapy.
- Evaluate effectiveness of analgesics.
- Reassess patient's leg position.
- Reassess patient's leg measurements.
- Evaluate teachings.
- Evaluate effectiveness of heat therapy.

OBJECTIVE 8

Choose the correct word or phrase to complete statements about inflammation, including etiology, signs and symptoms, medical treatment, and the application of the nursing process to patients with inflammation.

Etiology

Inflammation results from injury to cells or tissues of the body and is part of the body's defensive mechanism.

Assessment of Signs and Symptoms

Inflammation is apparent from the following signs and symptoms in the area of injury:

- Redness
- Heat
- Swelling
- Pain
- Loss of function due to pain and swelling

Medical Treatment

The nurse assists the physician in carrying out the following treatments for inflammation:

- Apply warm, moist compresses as ordered.
- Administer analgesics as prescribed.

Analysis

Report findings to an RN who will assimilate information for analysis and nursing care.

Planning and Implementation

The nurse is responsible for planning and implementing interventions to prevent and control inflammation.

Planning	Implementation
• Check doctor's orders	
• Check medication record	
• Collect equipment	
• Promote healing	• Enforce bed rest • Elevate affected part above the level of the heart • Apply warm, moist compresses *only* as prescribed • Provide back rubs
• Prevent complications	• Use caution when applying heat and assess area frequently
• Manage pain	• Administer analgesics as prescribed
• Monitor patient's condition	• Assess patient's condition • Monitor vital signs • Monitor I and O
• Provide support	• Assure patient's safety • Assure patient's privacy • Provide a quiet environment • Provide for patient's comfort

Evaluation

- Reassess patient's condition.
- Reassess vital signs.
- Evaluate effectiveness of compresses.
- Evaluate effectiveness of analgesics.
- Evaluate effectiveness of bed rest.

ASSIGNMENT SHEET 1

Development of:
SCIENCE SKILLS
CREATIVE THINKING/PROBLEM SOLVING SKILLS

- Introduce the assignment to the students by discussing why science and creative thinking/problem solving skills are important.
- Discuss with them the following skills which are relevant to this task:

  SCIENCE

  - Investigating/applying principles of anatomy/physiology
  - Investigating health issues
  - Investigating/applying chemical properties

  CREATIVE THINKING/PROBLEM SOLVING

  - Analyzing/synthesizing information
  - Drawing conclusions
  - Developing an action plan

- If students have difficulty investigating/applying principles of anatomy/physiology:
  - Review the characteristics of affected systems, chemical balances, etc.
  - Discuss the purpose and function of affected systems and organs.
  - Discuss the cause of each symptom.
  - Have students discuss the purpose of each intervention.
- If students have difficulty investigating health issues:
  - Have them identify the issues they are considering.

  - Have them explain the link between the issue and the procedure.

  - Refer them to standard references to answer questions they may have. Review their use, if needed.

- If students have difficulty investigating/applying chemical properties:

  - Review the properties of the chemicals involved.

  - Review the relationship of chemical levels and their functions.

  - Discuss interaction of various chemicals in the body.

  - Review the basic principles of fluid balance.

- If students have difficulty analyzing/synthesizing information:

  - Remind them that to analyze they must break the information down into all its components in order to understand it.

  - Remind them that to synthesize information they should put all the components together in a way that makes the information usable.

  - Have students identify when they are analyzing and when they are synthesizing and why each is appropriate.

  - Take students through the process from both directions. Have students review patient information and develop a diagnosis. Then have some students present a diagnosis and let others identify the information on which the diagnosis should be based.

- If students have difficulty drawing conclusions, direct them to examine the collected data and look for patterns, the range of normal, and the symbols used.

- If students have difficulty developing an action plan:

  - Instruct them to list their goals.

  - Discuss the steps necessary to attain the goals.

  - Instruct them to identify safety concerns for each condition.

- Instruct them to identify criteria to be assessed during and after intervention.
- Instruct them to arrange the steps in a logical order.

ASSIGNMENT SHEET 2

Development of:
SCIENCE SKILLS
CREATIVE THINKING/PROBLEM SOLVING SKILLS

- Introduce the assignment to the students by discussing why science and creative thinking/problem solving skills are important.
- Discuss with them the following skills which are relevant to this task:

  SCIENCE

  - Investigating/applying principles of anatomy/physiology
  - Investigating health issues

  CREATIVE THINKING/PROBLEM SOLVING

  - Analyzing/synthesizing information
  - Drawing conclusions
  - Developing an action plan

- For suggestions on teaching basic skills, refer to suggestions for Assignment Sheet 1.

ASSIGNMENT SHEET 1

PROVIDING CARE FOR PATIENTS WITH COMMON MEDICAL-SURGICAL COMPLICATIONS

III

Name ______________________________ Score ____________

OBJECTIVE 9

Plan appropriate interventions to maintain fluid balance or correct imbalance.

INTRODUCTION

A common medical-surgical complication is fluid imbalance. The nurse needs to know how to help the patient correct imbalance to avoid complications such as hypovolemic shock.

DIRECTIONS

A patient has shown symptoms of fluid imbalance. List the nursing interventions the patient needs to overcome the complication.

The patient shows the following symptoms:

- apprehension, anxiety, confusion
- abdominal cramps
- diarrhea
- rapid, weak pulse
- cold, clammy skin
- disorientation
- scanty urine

Life Science Skills
- Investigate/apply principles of anatomy/physiology
- Investigate health issues (medical, ergonomic, nutrition, mental health)

Physical Science Skills
- Investigate/apply chemical properties (elements, compounds, chemical symbols, families, formulae, equations)

Cognitive Activities Skills
- Analyze/synthesize information
- Draw conclusions
- Develop an action plan

BEST COPY AVAILABLE

PROVIDING CARE FOR PATIENTS WITH COMMON MEDICAL-SURGICAL COMPLICATIONS

Name ______________________ Score __________

OBJECTIVE 10

Prioritize nursing interventions based on assessment of complications.

INTRODUCTION

A nurse is responsible for providing care for patients with medical-surgical complications. A common postoperative complication is hemorrhage, which a nurse must quickly assess and implement control measures, because hemorrhage is life-threatening.

DIRECTIONS

Life Science Skills
- Investigate/apply principles of anatomy/physiology
- Investigate health issues (medical, ergonomic, nutrition, mental health)

Cognitive Activities Skills
- Analyze/synthesize information
- Draw conclusions
- Develop an action plan

A patient has developed the postoperative complication hemorrhage. List, in order, the nursing interventions that the patient needs to overcome the complication.

The patient shows the following symptoms:

- bleeding from the wound
- restlessness
- thirst
- rapid, thready pulse
- rapid, labored respirations

BEST COPY AVAILABLE

ASSIGNMENT SHEET 1

The response to Assignment Sheet 1 should show the student's familiarity with the following interventions for fluid imbalance:

- Identify symptoms as fluid deficit
- Administer oral or IV fluids as prescribed
- Administer blood products IV as prescribed
- Increase food and fluid intake
- Monitor patient's weight daily
- Provide for psychological support
- Teach the patient and family about the importance of maintaining fluid balance

ASSIGNMENT SHEET 2

The response to Assignment Sheet 2 should show the student's familiarity with the following priorities of interventions for hemorrhage:

1) Stop the bleeding
2) Treat the patient for shock
3) Administer oral and/or IV fluids as prescribed
4) If hemorrhage cannot be controlled, prepare to return the patient to the operating room.

WRITTEN TEST

PROVIDING CARE FOR PATIENTS WITH COMMON MEDICAL-SURGICAL COMPLICATIONS

III

Name ______________________________ Score ____________

OBJECTIVE 1

Match terms associated with common medical-surgical complications to their correct definitions. Write the correct letters in the blanks.

Part I

_____ 1. A condition free from infection

_____ 2. A foreign body or air in the circulatory system

_____ 3. Bluish discoloration of the skin

_____ 4. An excessive accumulation of serous fluid in the tissues

_____ 5. A localized swelling filled with blood

_____ 6. The state in which water and its solutes in the body are in abnormal proportions and concentrations

_____ 7. The loss of a large amount of blood

_____ 8. Coughing up of blood from the lungs or bronchial tubes

_____ 9. Deficiency in the amount of oxygen reaching body tissues

a. asepsis
b. cyanosis
c. edema
d. embolus
e. fluid imbalance
f. hematoma
g. hemoptysis
h. hemorrhage
i. hypoxia
j. infection
k. inflammation
l. pulmonary embolism
m. stasis
n. shock

May be photocopied for student use.

Part II

_____ 1. Inflammation of the walls of the veins with formation of a clot

_____ 2. A defensive response to injured tissues or cells

_____ 3. A disease state that results from the invasion and growth of micro-organisms in the body

_____ 4. The blocking of an artery by a blood clot carried by the blood flow and lodged in the lungs

_____ 5. A blood clot that causes vascular obstruction at the place of its formation

_____ 6. Body's reaction to severe circulatory failure

_____ 7. Stagnation of a bodily fluid, such as blood

_____ 8. The formation of a thrombus

_____ 9. Intravenous infusion

a. fluid imbalance

b. hematoma

c. hemoptysis

d. hemorrhage

e. hypoxia

f. infection

g. inflammation

h. pulmonary embolism

i. shock

j. stasis

k. thrombophlebitis

l. thrombosis

m. thrombus

n. venoclysis

May be photocopied for student use.

OBJECTIVE 2

Choose the correct word or phrase to complete statements about shock, including etiology, signs and symptoms, medical treatment, and the application of the nursing process to patients with shock. Write the correct letters in the blanks.

_____ 1. The type of shock that is caused by decreased fluid volume is

a. hypovolemic
b. cardiogenic
c. neurogenic
d. septic

_____ 2. The type of shock that is caused by pooling of blood in dilated vessels is

a. hypovolemic
b. cardiogenic
c. neurogenic
d. septic

_____ 3. Unlike other types of shock, a sign of neurogenic shock is

a. cold, clammy skin
b. rapid, weak pulse
c. decreased urinary output
d. slow, weak pulse

_____ 4. One symptom of shock that could indicate fluid imbalance is

a. hypotension
b. thirst
c. apprehension
d. changes in levels of consciousness

_____ 5. For treatment of shock, the nurse assists the physician in administering

a. a physical examination
b. deep breathing exercises
c. fluids and/or blood products
d. anti-coagulant therapy

_____ 6. Interventions the nurse may implement for control or prevention of shock include each item below, except

a. clear airway
b. assist patient with turning and deep-breathing exercises
c. control bleeding
d. keep patient warm

May be photocopied for student use.

_____ 7. One thing that can be done to prevent complications of shock is to

a. practice strict aseptic techniques
b. place patient in shock position
c. use humidified oxygen
d. control bleeding

_____ 8. In order to manage pain during shock, the nurse should be prepared to

a. give oral or IV fluids as prescribed
b. use humidified oxygen as prescribed
c. place patient in shock position
d. administer various drugs as prescribed

_____ 9. Following interventions for shock, the nurse should evaluate the

a. patient's environment
b. effectiveness of medications
c. deep breathing exercises
d. dressings

_____ 10. One sign or symptom of shock is

a. warm, dry skin
b. deep, slow respirations
c. hypotension
d. increased urinary output

OBJECTIVE 3 **Choose the correct word or phrase to complete statements about hemorrhage, including etiology, signs and symptoms, medical treatment, and the application of the nursing process to patients with hemorrhage.** Write the correct letters in the blanks.

_____ 1. Hemorrhage is

a. any type of bleeding
b. excessive blood loss
c. escape of blood
d. always visible

_____ 2. Both internal and external hemorrhage are characterized by decreased capillary

a. distention
b. blood pressure
c. levels
d. refill

May be photocopied for student use.

_____ 3. A *unique* sign of external hemorrhage, other than visible blood loss, is

a. deep, rapid respirations
b. cold, moist, pale skin
c. changes in levels of consciousness
d. shock

_____ 4. Both internal and external hemorrhage are characterized by

a. ringing in ears
b. visible bleeding
c. decreased blood pressure
d. spots before eyes

_____ 5. For the treatment of hemorrhage, the nurse assists the physician in administering

a. dressing changes
b. treatment for shock
c. strict aseptic techniques
d. fluids and/or blood products

_____ 6. One nursing intervention for hemorrhage should be to treat the patient for

a. rapid, thready pulse
b. distension and/or tenderness of soft tissues
c. changes in levels of consciousness
d. shock

_____ 7. To prevent complications when reinforcing or changing dressings, the nurse should practice

a. treatment for shock
b. external pressure
c. strict aseptic techniques
d. giving fluids

_____ 8. To promote healing, the nurse should observe for

a. psychological disorders
b. internal/external bleeding
c. evidence that dressings are correctly applied
d. recent changes in I and O

May be photocopied for student use.

_____ 9. All of the following are part of evaluating treatment for external hemorrhage, except

a. provide analgesics
b. evaluate levels of consciousness
c. evaluate bleeding
d. reassess for shock

_____ 10. All of the following are part of evaluating treatment for internal hemorrhage, except

a. evaluate effectiveness of medications
b. evaluate fluid therapy
c. take patient's temperature
d. reassess vital signs

OBJECTIVE 4

Choose the correct word or phrase to complete statements about pulmonary embolism, including etiology, signs and symptoms, medical treatment, and the application of the nursing process to patients with pulmonary embolism. Write the correct letters in the blanks.

_____ 1. Pulmonary embolism is a condition in which a blood clot or a fragment of a clot lodges in the

a. heart
b. lungs
c. brain
d. extremities

_____ 2. Pulmonary embolism may also be a complication of prolonged bed rest, which may cause

a. tachypnea
b. hypoxia
c. hemoptysis
d. venous stasis

_____ 3. One recognizable sign or symptom of pulmonary embolism is

a. shock
b. cold, clammy skin
c. sharp chest pain
d. erratic pulse

_____ 4. Besides coughing and hemoptysis, another respiratory sign of pulmonary embolism may be

a. rales
b. deep, painful coughing
c. deep breaths
d. shallow breaths

May be photocopied for student use.

_____ 5. For the treatment of pulmonary embolism, the nurse assists the physician in administering

a. treatment for shock
b. exercises
c. elevated legs
d. anti-coagulant therapy

_____ 6. To promote healing, the nurse will, per orders, provide the patient with

a. fluid intake
b. safety
c. anti-embolus stockings
d. venous stasis

_____ 7. To prevent complications, the nurse may encourage

a. fluid intake
b. anti-coagulant therapy
c. elevated legs
d. anti-embolus stockings

_____ 8. For a patient with pulmonary embolism, the nurse would assess skin condition looking for signs of

a. dryness and inflammation
b. cyanosis and pallor
c. insensitivity to pain or touch
d. elevated skin temperature

_____ 9. During evaluation, the nurse should evaluate the effectiveness of

a. the patient's condition
b. vital signs
c. oxygen therapy
d. I and O

_____ 10. A psychological sign or symptom of pulmonary embolism is

a. anxiety
b. nervousness
c. depression
d. aggression

May be photocopied for student use.

OBJECTIVE 5 **Choose the correct word or phrase to complete statements about fluid imbalance, including etiology, signs and symptoms, medical treatment, and the application of the nursing process to patients with fluid imbalance.** Write the correct letters in the blanks.

_____ 1. Fluid imbalance caused by a loss of body fluid is called

a. hemorrhage
b. diarrhea
c. fluid excess
d. fluid deficit

_____ 2. Fluid imbalance caused by over-hydration is called

a. ADH
b. fluid deficit
c. fluid excess
d. low renal blood flow

_____ 3. Sodium excess usually results from

a. fluid deficit
b. renal sodium excretion
c. extracellular fluid
d. administering nutritional fluids

_____ 4. One respiratory symptom of fluid excess is

a. deep, slow respirations
b. rales
c. shallow, rapid respirations
d. coughing

_____ 5. The first sign of fluid deficit is

a. dry lips
b. sunken eyes
c. thirst
d. weight loss

_____ 6. As the condition of fluid excess continues, the patient progress into

a. coma
b. apathy
c. hyperventilation
d. confusion

May be photocopied for student use.

_____ 7. As part of the patient's medical treatment for fluid imbalance, the nurse assists the physician in administering

a. antidiuretic medications
b. oral or IV fluids
c. nasogastric tube
d. balanced I and O

_____ 8. To promote healing in some cases of fluid imbalance, the patient may increase

a. food and fluid intake
b. medications
c. blood products
d. I and O

_____ 9. Low sodium concentrations (hyponatremia) usually result from

a. increased perspiration
b. decreased production of ADH
c. intake of large amounts of nutritional fluids
d. fluid excess

_____ 10. During evaluation for either fluid deficit or excess, the nurse should evaluate the effectiveness of

a. the patient's condition
b. the patient's thirst
c. fluid therapy
d. patient teaching

OBJECTIVE 6

Choose the correct word or phrase to complete statements about infections, including etiology, signs and symptoms, medical treatment, and the application of the nursing process to patients with infections. Write the correct letters in the blanks.

_____ 1. The type of infection that may be caused by improper pericare and/or hygiene is

a. disease
b. urinary-tract infection
c. surgical wound infection
d. respiratory-tract infection

_____ 2. The type of infection that may result from or be a complication of immobilization in bed is

a. disease
b. surgical wound infection
c. respiratory-tract infection
d. urinary-tract infection

May be photocopied for student use.

_____ 3. Among other signs and symptoms, a surgical wound infection is characterized by

a. elevated temperature
b. dyspnea
c. dysuria
d. increased pain

_____ 4. One of the primary signs of a surgical wound infection is

a. foul-smelling drainage
b. frequent urination
c. chest pains
d. dysuria

_____ 5. One of the primary signs of a urinary-tract infection is

a. rapid pulse
b. dyspnea
c. cloudy urine
d. cyanosis

_____ 6. One of the primary signs of a respiratory-tract infection is

a. rapid pulse
b. increased temperature and chills
c. burning sensation
d. wound drainage

_____ 7. For treatment of infections, the nurse assists the physician in administering

a. humidity in air
b. good nutrition
c. prescribed antibiotics
d. deep breathing and coughing exercises

_____ 8. To promote healing of patients with a respiratory-tract infection, the nurse may

a. assist patient in maintaining good nutrition
b. practice strict aseptic techniques
c. monitor and care for catheters
d. administer expectorants

May be photocopied for student use.

_____ 9. To prevent complications in patients with an infection, the nurse may

a. promote personal hygiene
b. administer oxygen therapy
c. clean and irrigate the wound
d. administer prescribed antibiotics

_____ 10. One evaluation the nurse should perform for patients with respiratory-tract infections is to evaluate the effectiveness of

a. practice of strict aseptic technique
b. patient's personal hygiene
c. patient's oxygen therapy
d. patient's fluid intake

OBJECTIVE 7

Choose the correct word or phrase to complete statements about thrombophlebitis, including etiology, signs and symptoms, medical treatment, and the application of the nursing process to patients with thrombophlebitis. Write the correct letters in the blanks.

_____ 1. Thrombophlebitis refers to formation of a blood clot in a vein with

a. inflammation
b. phlebothrombosis
c. edema
d. cramping

_____ 2. Among other signs and symptoms, thrombophlebitis is characterized by

a. swelling and edema in the arms
b. pain and cramping in the calf of the leg
c. redness and warmth around the surgical wound
d. painful swelling without edema

_____ 3. One psychological symptom of thrombophlebitis may be

a. aggression
b. confusion
c. apprehension
d. fear

May be photocopied for student use.

_____ 4. Thrombophlebitis may be caused by hypercoagulability associated with

a. injection of irritating substances
b. postoperative stasis
c. septic phlebitis
d. oral contraceptives

_____ 5. If prescribed, as part of the medical treatment for thrombophlebitis, the nurse may

a. massage legs
b. administer oxygen therapy
c. apply external heat to affected area
d. elevate affected leg

_____ 6. To promote healing, the nurse should avoid

a. anti-coagulant therapy
b. massaging legs
c. external heat
d. anti-embolism hose

_____ 7. To prevent complications of thrombophlebitis, the nurse should

a. enforce bed rest
b. administer anti-coagulant therapy
c. administer analgesics
d. assure the patient's safety

_____ 8. Part of providing support to a patient with thrombophlebitis is to

a. assess the patient's condition
b. assess the degree of swelling
c. check vital signs
d. teach the patient the proper use and care of anti-embolism or pneumatic hose

_____ 9. While monitoring the patient's condition, one way to assess the degree of swelling is to

a. ask the patient
b. compare leg measurements
c. size the anti-embolism or pneumatic hose correctly
d. monitor vital signs

May be photocopied for student use.

_____ 10. If prescribed, the nurse should evaluate the effectiveness of

a. patient's leg position
b. enforced bed rest
c. heat therapy
d. leg massages

OBJECTIVE 8

Choose the correct word or phrase to complete statements about inflammation, including etiology, signs and symptoms, medical treatment, and the application of the nursing process to patients with inflammation. Write the correct letters in the blanks.

_____ 1. Inflammation results from injury to

a. defenses
b. skin and bones
c. the respiratory tract
d. cells and tissues

_____ 2. In the area of the injury, inflammation is apparent from

a. edema
b. thrombosis
c. redness, swelling, and pain
d. defense mechanisms

_____ 3. For the treatment of inflammation, the nurse assists the physician in administering

a. back rubs
b. analgesics
c. elevation of affected part
d. bed rest

_____ 4. To promote healing of inflammation, the nurse may

a. apply warm, moist compresses as prescribed
b. administer massage in affected area
c. keep the affected area below the level of the heart
d. administer oxygen therapy

May be photocopied for student use.

_____ 5. In extreme cases of inflammation, the patient may experience

a. dizziness
b. loss of function due to pain and swelling
c. increased temperature and pain
d. infection

_____ 6. To prevent complications of inflammation, the nurse should be careful when

a. administering analgesics
b. assuring patient's safety
c. applying heat to affected area
d. providing back rubs

_____ 7. To provide support for patients with inflammation, the nurse should

a. assess patient's condition
b. monitor vital signs
c. enforce bed rest
d. provide for the patient's comfort

_____ 8. As part of evaluation of the patient's inflammation, the nurse should evaluate the effectiveness of

a. back rubs, heat therapy, and vital signs
b. heat therapy, analgesics, and back rubs
c. compresses, analgesics, and bed rest
d. vital signs, bed rest, and compresses

Notice: Objectives 9 and 10 are evaluated on assignment sheets in this unit. If you have not completed these components, see your instructor.

May be photocopied for student use.

WRITTEN TEST ANSWERS

PROVIDING CARE FOR PATIENTS WITH COMMON MEDICAL-SURGICAL COMPLICATIONS III

OBJECTIVE 1

Part I

1. a
2. d
3. b
4. c
5. f
6. e
7. h
8. g
9. i

Part II

1. k
2. g
3. f
4. h
5. m
6. i
7. j
8. l
9. n

OBJECTIVE 2

1. a
2. c
3. d
4. b
5. c
6. b
7. a
8. d
9. b
10. c

OBJECTIVE 3

1. b
2. d
3. a
4. c
5. d
6. d
7. c
8. b
9. a
10. c

OBJECTIVE 4	1.	b	6.	c
	2.	d	7.	a
	3.	c	8.	b
	4.	a	9.	c
	5.	d	10.	a
OBJECTIVE 5	1.	d	6.	a
	2.	c	7.	b
	3.	a	8.	a
	4.	b	9.	d
	5.	c	10.	c
OBJECTIVE 6	1.	b	6.	b
	2.	c	7.	c
	3.	d	8.	d
	4.	a	9.	a
	5.	c	10.	c
OBJECTIVE 7	1.	a	6.	b
	2.	b	7.	a
	3.	c	8.	d
	4.	d	9.	b
	5.	c	10.	c
OBJECTIVE 8	1.	d	6.	c
	2.	c	7.	d
	3.	b	8.	c
	4.	a		
	5.	b		

OBJECTIVE SHEET

PROVIDING CARE FOR THE ONCOLOGY PATIENT

IV

INTRODUCTION

Nurses have a responsibility to enhance a cancer patient's quality of life. This can be an excellent opportunity to offer hope and support to the patient's family and friends. Because cancer is nondiscriminating according to age, sex, or nationality, nurses will come in contact with cancer regardless of their chosen area of practice or facility. Whether at home or hospitalized, care of the cancer patient presents new challenges and rewards. It is essential for the nurse to learn as much as possible about the diseases, methods of diagnosis, treatment agents, and side effects in order to meet the challenges involved in the care of the patient with an oncologic illness.

UNIT OBJECTIVE

After completing this unit, the student will be able to differentiate between benign and malignant tumors, recognize diagnostic procedures, treatment modalities, and complications of treatment. In addition, the student will be able to describe safety guidelines and nursing responsibilities in the care of the oncologic patient. The student will demonstrate these competencies by completing the assignment sheets and written test with a minimum of 85 percent accuracy.

PREREQUISITES

Body Structure and Function
Nutrition
Growth and Development Through the Life Span
"Applying Basic Principles of Medical-Surgical Care"
"Caring for Patients with Common Medical-Surgical Complications"

SPECIFIC OBJECTIVES

After completing this unit, the student will be able to:

1. Match terms associated with the care of oncologic patients to their correct definitions.
2. Select true statements about the pathophysiology of benign and malignant neoplasms.
3. Match the classifications of neoplasms with their definitions.
4. List the seven warning signs of cancer.
5. Select from a list the predisposing factors known to contribute to the development of neoplastic diseases.
6. Match diagnostic procedures to their purposes.

7. Select true statements about the current treatments used for cancer patients and the nursing responsibilities.

8. Select true statements concerning safety guidelines for oncologic nurses.

9. Select true statements concerning safety guidelines for oncologic patients.

10. Select true statements about the side effects or complications of oncologic treatments and the types of pharmacologic agents used to control, alleviate, or prevent them.

11. Select nursing interventions to assist patients and their families throughout an oncologic illness.

12. List common resources for oncologic patients and their families.

13. Research local community resources for oncologic patients and their families. (Assignment Sheet 1)

14. Formulate a plan of care for the oncologic patient undergoing treatment. (Assignment Sheet 2)

15. Formulate a plan of supportive care for the advanced oncologic patient. (Assignment Sheet 3)

PREPARATION

- Review the unit and plan your presentation.
- Determine the scope and sequence of objectives you add. Design and develop support materials, including evaluation techniques for additional objectives.
- Review teaching suggestions and plan classroom activities.
- Determine how you will schedule time for students to demonstrate competence in the required procedures.
- Order materials to supplement the unit.
- Order films and videos.
- Invite guest speakers to discuss the various aspects of care for the patient with cancer. (Suggested speakers are oncologic nurses, oncologists, volunteers from various support groups such as Candlelighters, Cansurmount, Reach to Recovery, or a representative from the American Cancer Society.)

  NOTE: Please provide guest speakers with the specific topic relevant to the unit of instruction ahead of time. You may want to supply the objective sheet, information sheet, and any other components you want the speaker to cover. Confirm each scheduled appearance two to three days prior to the presentation.
- Arrange a field trip to participate in a hospital Tumor Board meeting.
- Obtain posters on self-breast and self-testicular exams.
- Design a bulletin board illustrating aspects of cancer care, current treatments, diagnostic testing, or the seven warning signs.
- **HOSA** Integration
  - — Assist students with a chapter service project in conjunction with the American Cancer Society and a local hospital, clinic, or city/county health department.

- Assign students a short research paper of one to two pages on various types or locations of cancer. (An example is Aquamous Cell Carcinoma.) Papers need to adhere to the format of the State Competitive Guidelines.
- Assign students a two-minute oral presentation on their research papers.
- Assist in a community awareness project; adhere to the National Competitive Guidelines.

DELIVERY

- Discuss the unit and specific objectives.
- Participate in a field trip to an oncologic unit, radiation department, and/or pharmacy department.
- Encourage students to use computer software, if computers are available.
- Devise games and/or crossword puzzles to reinforce terms.

Objective 1: Match terms associated with the care of oncologic patients to their correct definitions.

- Have students make flash-cards with terms and definitions associated with care of the oncologic patient, then drill one another on terms and definitions.
- Have students participate in a mock competitive event in medical spelling/medical terminology.

Objective 2: Select true statements about the pathophysiology of benign and malignant neoplasms.

- Have students participate in a mock competitive event identifying the differences in pathophysiology of benign and malignant neoplasms.
- Have a pathologist come to show basic slides illustrating the differences on microscopic examination between benign and malignant cells.

Objective 3: Match the classifications of neoplasms with their definitions.

- Discuss the four classifications of neoplasms. Have students recall what they know about the anatomy and physiology of the various tissues and organs which are involved in each classification.

Objective 4: List the seven warning signs of cancer.

- Ask students to identify the seven warning signs of cancer. Supplement their list as needed.

- Discuss self-breast and self-testicular examinations.

- Show *Cancer Nursing: The Critical Difference.*

Objective 5: Select from a list the predisposing factors known to contribute to the development of neoplastic diseases.

- Have students relate and list as many predisposing factors to the development of neoplastic disease as possible. Supplement their list as needed.

- Have a speaker come and discuss infectious waste and the handling and/or disposal of this material.

Objective 6: Match diagnostic procedures to their purposes.

- Have students relate and list what they know about diagnostic procedures used to identify cancer patients. Supplement their list as needed.

- Participate in a field trip to a Tumor Board at a local hospital or clinic.

Objective 7: Select true statements about the current treatments used for cancer patients and the nursing responsibilities.

- Have students relate and list any oncologic treatments with which they are familiar; then have them discuss possible nursing responsibilities for each.

- Have a speaker come to present the nurse's role or discuss current cancer care.

Objective 8: Select true statements concerning safety guidelines for oncologic nurses.

- Have students relate and list possible safety precautions for nurses providing oncologic treatment. Supplement their list as needed.

- Show a sample of a dosimeter.

- Show samples of the biohazardous waste bags, signs, and symbols, etc., used to provide safety for everyone.

- Show *Work Practice Guidelines for Handling Antineoplastic Agents.*

Objective 9: Select true statements concerning safety guidelines for oncologic patients.

- Have students relate and list possible safety precautions for oncologic patients during treatment. Supplement their list as needed.

- Have students role-play nurses and patients, with the nurses performing a patient safety assessment.

Objective 10: Select true statements about the side effects or complications of oncologic treatments and the types of pharmacologic agents used to control, alleviate, or prevent them.

- Have students relate and list any experiences with side effects of oncologic treatments and pharmacological agents used to control, alleviate, or prevent the side effects.

- Play reinforcement games using side effects and corresponding pharmaceutical agents used to control, alleviate, or prevent them.

Objective 11: Select nursing interventions to assist patients and their families throughout an oncologic illness.

- Have students relate and list any experiences with the stages of grief or the grieving process. Relate the stages of grief to the oncologic nursing situation.

- Have a hospital chaplain or volunteer from a support group come to speak to the class about interventions they have found helpful or useful to cancer patients and/or their families.

Objective 12: List common resources for oncologic patients and their families.

- Have students brainstorm a list of support groups and organizations (nationally, regionally, and locally) available to assist cancer patients and their families.

- Assign students to attend a local cancer support group.

APPLICATION

Objective 13: Research local community resources for oncologic patients and their families.

- Discuss Assignment Sheet 1.
- Have students identify how to locate sources of information.
- Have students complete questionnaire.

Objective 14: Formulate a plan of care for the oncologic patient undergoing treatment.

- Discuss Assignment Sheet 2.
- Have students write a plan of care.

Objective 15: Formulate a plan of supportive care for the advanced oncologic patient.

- Discuss Assignment Sheet 3.
- Have students write a plan of care.

EVALUATION

Pretest

- Give written test as pretest.
- Determine individual study requirements from pretest results.
- Counsel students individually on pretest results and study requirements.
- Modify materials in unit or create supplementary materials for individual students as required.

Written Test

- Explain to students that they will be asked to demonstrate on the written test actions listed in the specific objectives.
- Evaluate students on assignment sheet activities if not previously done.
- Give the written test.

NOTE: The written test may be given in sections if desired.

- Reteach and retest if necessary.
- Complete the appropriate section of competency profiles.

- Review individual and group performance in order to evaluate teaching methods. Adjust scope, sequence, or instructional approaches for additional lessons as required.

SUGGESTED RESOURCES

Electronic Media

- *Cancer Nursing: The Critical Difference.* #3794.05 (VHS, 17 min.)

  The above video is available from:

  American Cancer Society
  3000 United Founders Blvd., Suite 136
  Oklahoma City, OK 73112
  (800) 522-8139 (outside 405 area code)
  (800) 733-9888

- *Work Practice Guidelines for Handling Antineoplastic Agents.* (VHS, 30 min.)

  The above video is available from:

  Concept Media
  P. O. Box 19542
  Irvine, CA 92713
  (800) 233-7078

Print Media

- Foley, Kathleen M. *The Treatment of Pain in the Patient with Cancer.* American Cancer Society, Inc.: New York, 1986.
- Hill, C. Stratton and Russell K. Portenoy. *Pain Control in the Patient with Cancer.* American Cancer Society, Inc.: Atlanta, GA, 1989.
- Marshall, Sharon. "5-FU Plus Levamisole Improves Survival," *Pharmacy Practice News*, June, 1990.
- Silverburg, Edwin, Catherine C. Boring, and Terresa S. Squires. *Cancer Statistics: 1990.* American Cancer Society, Inc.: Atlanta, GA, 1990.
- Skidmore-Roth, Linda and Marie Jaffe. *Medical-Surgical Nursing Care Plans.* Appleton-Century-Crofts: Norwalk, CN, 1986.

UNIT REFERENCES

- Brunner, Lillian Sholtis and Doris Smith Suddarth. *Textbook of Medical-Surgical Nursing* (6th ed.). J.B. Lippincott Co.: Philadelphia, 1988.

- Cassileth, Barrie B. ed. *Caring for the Patient with Cancer at Home.* American Cancer Society, Inc.: New York, 1988.

- Germino, Barbara B., Marie Killilea, JoAnn Wegmann, and Helen E. Sheehan. *Living with Cancer.* American Cancer Society, Inc.: New York, 1988.

- Glover, Donna J. and John H. Glick. *Metabolic Oncologic Emergencies.* American Cancer Society, Inc.: New York, 1988.

- Hill, C. Stratton and Russel K. Portenoy. *Pain Control in the Patient with Cancer.* American Cancer Society, Inc.: Atlanta GA, 1989.

- Holland, Jimmie, David Wellisch, Peter M. Silberfarb, William H. Redd, Christopher C. Gates, Wendy S. Schain, Morton A. Lieberman, Grace Powers Monaco, Barrie R. Cassileth, and Helene Brown. *Psychosocial Issues and Cancer.* American Cancer Society, Inc.: Atlanta, GA, 1989.

- Holleb, Arthur I. ed. *The Adolescent with Cancer.* American Cancer Society, Inc.: New York, 1988.

- Holleb, Arthur I. ed. *Unproven Methods of Cancer Management.* American Cancer Society, Inc.: New York, 1988.

- Krakoff, Irwin H. *Cancer Chemotherapeutic Agents.* American Cancer Society, Inc.: New York, 1987.

- Oniboni, Alma Carison. *Understanding and Preventing Infection in the Patient with Cancer.* American Cancer Society, Inc.: New York, 1987.

- Schafer, Sandra Lee, Rita Wickham, and Shirley M. Gullo. *Nursing Management of the Patient Receiving Chemotherapy.* American Cancer Society, Inc.: New York, 1988.

- Vannicola, Paula, Susan Ellison Derby, and Deborah Welch-McCaffrey. *Cancer in the Elderly.* American Cancer Society, Inc.: New York, 1988.

- Winchester, David P., Joel R. Berstein, Milton L. Paige, and Miriam L. Christ. *The Early Detection of Breast Cancer.* American Cancer Society, Inc.: Atlanta, GA, 1988.

- Yasko, Joyce M. and Patricia Greene. *Coping with Problems Related to Cancer and Cancer Treatment.* American Cancer Society, Inc.: New York, 1987.

INFORMATION SHEET

PROVIDING CARE FOR THE ONCOLOGY PATIENT

IV

OBJECTIVE 1

Match terms associated with the care of the oncologic patient to their correct definitions.

- **alopecia** – loss of hair
- **anorexia** – loss of appetite
- **antineoplastic drugs** – drugs which aid in tumor cell death and interfere with cellular functions and reproduction
- **benign** – a state of non-malignancy
- **biopsy** – excision of tissue from a living patient for diagnostic study
- **cachexia** – a state of marked emaciation, weakness, malnutrition resulting from increased metabolic demands of the tumor, impaired glucose metabolism, altered lipid metabolism, competition of tumor cells for nutrients, and failure of appetite
- **cancer** – a cellular malignancy resulting in unregulated cell growth, lack of differentiation, and ability to invade local tissues and metastasize
- **carcinogen** – any agent or substance that causes cancer
- **chemotherapy** – the use of medications or chemicals to encourage death of cancerous cells by interrupting cellular functions
- **cytotoxic** – an antibody which has a specific toxic action upon cells
- **hospice** – an in-home program designed for patients in advanced stages of a terminal disease that provides relief of symptoms and psychological, social, and spiritual support to the patient and family in the final months, weeks, or days of illness
- **immunotherapy** – treatment that stimulates an immune response
- **malignant** – a state characterized by cells which lack differentiation but have the properties of invasion and metastasis tending to become progressively worse

- **mammography** – an examination of the breasts (as for early detection of cancer) using a mammogram (photograph of the breasts with low-level x ray)

- **metastasis** – the transfer of cells from one organ or part of the body to another not directly connected to it; this transfer occurs through the blood or lymph system

- **neoplasm** – any new and abnormal growth, specifically a new growth of tissue, in which the growth is uncontrolled and progressive

- **oncology** – the study of tumors

- **radiation therapy** – the use of ionizing radiation to interrupt cellular growth

- **remission** – the cessation or disappearance of symptoms

- **tumor** — a compartmentalized association of cells believed to arise from a clone of transformed cells with nonrandom chromosomal abnormalities

- **xerostomia** – a state of inadequate or absent saliva production (dry mouth) resulting from the exposure of the salivary glands to radiation

OBJECTIVE 2

Select true statements about the pathophysiology of benign and malignant neoplasms.

From birth until death, our bodies are in a constant state of change. Ordinarily, this change involves the death and replacement of millions of cells each day. Our cells normally multiply, differentiate into specific types, and mature. As our cells mature or become injured, new cells of the same type replace them. Our complex body systems which heal, repair, replace, and regenerate new cells as we need them, also have a mechanism of control which discontinues cellular repair, replacement, or regeneration when the work has been completed.

Cancer cells, however, are abnormal cells. They continue to grow and multiply beyond the limits of our normal cells. For unknown reasons, these cells override our body's mechanisms of cellular control and result in unrestrained growth of cells characteristic of cancer.

Neoplasms are divided into two main categories, benign and malignant.

The following are characteristics of the pathophysiology of benign neoplasms:

- Cells resemble normal cells of tissue from which the neoplasm was taken.
- Growth takes place by orderly expansion, does not invade tissues, is encapsulated.
- Growth rate is slow.
- Neoplasm does not metastasize or spread.
- Neoplasm does not cause injury to surrounding tissues unless its location causes pressure or impedes blood flow.
- Neoplasm does not generally result in death unless its location affects vital organs.

The following characteristics are the pathophysiology of malignant neoplasms:

- Cells have very little resemblance to the normal cells of tissue from which the tumor was taken.
- Growth takes place in invasion and destruction of surrounding tissues.
- Growth rate is rapid.
- Neoplasm metastasizes to other areas of the body through the blood and lymph systems, and also by direct extension.
- Neoplasm has a tendency to recur after removal.
- Tumor causes extensive injury to surrounding tissues by overtaking blood supply and/or producing substances that result in cellular injury.
- Neoplasm will result in death unless growth of neoplasm can be controlled.

OBJECTIVE 3 **Match the classifications of neoplasms with their definitions.**

The American Cancer Society identifies four classifications of neoplasms.

- **Carcinomas** – cancer of epithelial cells, such as skin and the lining of the lungs (these tend to be solid neoplasms)
- **Sarcomas** – cancer of the bone, muscle, fat, and connective tissue
- **Lymphomas** – cancer of infection-fighting organs or lymphoid tissues
- **Leukemia** – cancer of blood-forming organs or hematological system

OBJECTIVE 4 **List the seven warning signs of cancer.**

The successful treatment or cure of cancer is most dependent upon early detection. The nurse plays a major part in teaching others about wellness. Through example, the nurse is the role model of how others should care for themselves. The old adage, "Actions speak louder than words," holds true. In addition, the nurse is viewed as a source of knowledge about prevention and early detection of cancer and, oftentimes, serves in community awareness activities related to tobacco use, sun exposure, proper nutrition, use of alcohol, and other contributors.

To alert oneself, patients, and the community about cancer, the nurse needs to be familiar with the seven warning signs that indicate the need for a medical examination.

The seven warning signs of cancer are

- Changes in bowel or bladder habits
- A sore that does not heal
- Unusual bleeding or discharge
- Thickening or lump in breast or elsewhere
- Indigestion or difficulty in swallowing
- Obvious change in wart or mole
- Nagging cough or hoarseness

OBJECTIVE 5

Select from a list the predisposing factors known to contribute to the development of neoplastic diseases.

Research has shown that cancer is the result of a variety of factors which, combined in just the right measure, stimulate the onset of the disease. Factors which may result in cancer for one individual may not result in cancer for another. Known causative factors, therefore, are referred to as predisposing—the individual is subject to the disease but may not succumb. Predisposing factors can be separated into the five categories of carcinogens listed below:

- Chemical Factors
    - Alcohol consumption
    - Arsenic
    - Asbestos
    - Asphalt
    - Chromate
    - Cigarette smoking/tobacco use
    - Pesticides and herbicides
    - Uranium

- Genetic Factors
    - DNA damage
    - Abnormal chromosomal patterns (e.g., extra chromosomes, too few chromosomes, translocated chromosomes)
    - Skin pigmentation

- Hormonal Factors
    - Endogenous hormone production (one's own body)
    - Exogenous hormone administration

- Physical Factors
    - Exposure to ultraviolet radiation of the sun
    - Exposure to ionizing radiation
    - Exposure to radioactive materials
    - Chronic irritation or inflammation
    - Reproductive and sexual history

- Viruses
    - Epstein-Barr virus
    - Herpes Simplex II virus
    - Cytomegalovirus
    - Papillomavirus
    - Hepatitis B virus
    - Human Immunodeficiency Virus (HIV)

OBJECTIVE 6

Match diagnostic procedures to their purposes.

Determining the presence of cancer requires a thorough patient history, physical assessment, and the results of diagnostic procedures.

If cancer is suspected, the diagnostic testing becomes quite extensive in order to establish the location of the neoplasm, to determine the degree of spreading or invasion of other tissues, and to assess the body's overall adjustment to the disease.

The nurse must be knowledgeable of these procedures to be able to give the patient and family the information needed about procedures and the patient's role in them. A supportive, caring, informed nurse will help minimize the fear and anxiety that accompanies this type of testing.

The six diagnostic procedures listed below vary according to their purposes:

Physical examination

Internal assessments, such as a pelvic or rectal exam, are performed to investigate clinical signs and symptoms related to cancer growth either in the vicinity or at a distance from the site of examination. The technique is to examine by manual palpation.

Endoscopy

Endoscopy is an internal assessment using a flexible, telescope-like optical instrument which resembles a small black rubber hose. The hose-type instrument is inserted as the physician looks at the internal organ under study. The procedures and instruments are named for the organs they visualize:

- Bronchoscopy (Bronchoscope): Lungs
- Laparoscopy (Laparoscope): Abdomen
- Cystoscopy (Cystoscope): Bladder
- Gastroscopy (Gastroscope): Stomach
- Sigmoidoscopy (Sigmoidoscope): Lower colon
- Proctoscopy (Proctoscope): Rectum
- Colonoscopy (Colonoscope): Total colon

The physician may obtain a biopsy using endoscopy if a mass is found.

NOTE: Not all internal organs can be visualized by this method; therefore, the procedure will vary according to the organ under investigation.

Biopsy

Microscopic study of tissue helps to confirm or disprove the malignancy of a neoplasm and then to determine the type of cancerous cell and the degree of cellular differentiation. The three types of biopsy are

- Incisional biopsy – surgical removal of a section of the tumor
- Excisional biopsy – removal of entire tumor, if small
- Needle biopsy – removal of fluid or a small wedge of neoplasm by using a needle and syringe

Cytology

Cytology is a sampling of loosened layers of cells without the surrounding tissue, as in a biopsy. The isolated cells are prepared on a slide for microscopic examination. A common example is a Pap smear, which defines any abnormalities in the cells of the cervix.

Laboratory tests

Routine blood and urine tests and, in some instances chromosomal analysis, help to determine any abnormal values that may indicate neoplastic disease.

Imaging Procedures

Imaging procedures use machines that allow internal viewing of bones, tissues, surgery, and body chemistry. The eight procedures named below are the most common.

- **X ray** — images bones and chest region and is used to detect cancer of the lung and bone.
- **Mammography** — images changes in the breast and is used to detect breast cancer.
- **Xerography** — images soft tissue in detail and is used to detect cancer in soft tissue.
- **CT (Computerized Tomography) Scan** — Images deep parts of the body through the use of a beam of radiation in connection with a computer. This procedure allows viewing without invasive procedures such as surgery.

- **MRI (Magnetic Resonance Imaging)** — Images body chemistry in the heart, brain, and other organs without radiation. The MRI is a combination of a strong magnet, radio frequency waves, and a computer which produces images similar to x rays.

- **Contrast X ray** — Images movement of a liquid or dye through an organ or body system. Examples include barium swallowed to view the functioning of the gastrointestinal tract or dye injected to trace the lymph system (a lymphangiography).

- **Nuclear Scans (radionuclide)** — Image the electromagnetic radiation of radionuclides (radioactive substances such as ^{131}I, which can be administered orally, parenterally, or through intercavitary routes). The emissions of the radionuclides are easily detectable with a variety of instruments. The radionuclides can be both quantitated (spread throughout an organ or tissue to image the entire structure) or localized (concentrated in the tumor cells to image only the tumor) within the body accurately and noninvasively.

- **Ultrasound** — Images tissues of varying density by interpreting echoed sound waves. These echoes are picked up and recorded from tissues. Normal cells and malignant cells do not have the same density, so they show up differently on the ultrasound. At present, however, this test is not useful for imaging the lungs or stomach.

OBJECTIVE 7

Select true statements about the current treatments used for cancer patients and the nursing responsibilities.

Current treatments used for neoplastic disease are often used simultaneously or in consecutive order. It is important for the nurse to be familiar with each treatment modality and to understand the responsibilities required of each treatment in order for the nurse to deliver quality patient care.

Surgery

This treatment is aimed at total removal of all cancerous and precancerous cells from the host (patient). Generally, the surgeon excises the tumor in its entirety with a margin of normal tissue surrounding the tumor, an area which might contain "transitional cells."

In addition to diagnostic surgery, discussed earlier as **biopsy**, four four other types of surgical procedures involving cancer patients are

- Preventive or prophylactic surgery

  This surgery is the removal of precancerous lesions such as leukoplakia of the lip, or vulva. Small tumors (polyps) of the colon or larynx and heavily pigmented moles which are located in areas of continued irritation have a tendency to transform into malignant tumors. Therefore, early removal of these lesions, which are apt to develop into cancer, is recommended and is called prophylactic surgery.

- Curative surgery

  A few cancers may be cured with surgical removal alone; however, this type of cure occurs primarily if the disease is found early, when it is still localized. Also, this surgery usually requires removal of the organ or limb, in whole or in part, where the tumor is located.

- Palliative surgery

  Providing a patient with some level of comfort when a cancer cure is not possible is the aim of palliative surgery. Goals generally involve relieving some of the symptoms which accompany the cancer, such as pain, ulcerations, infection, hemorrhage, or obstructions. Occasionally, glands which produce hormones that are contributing to the growth of the tumor are removed.

- Reconstructive surgery

  Following curative surgery, additional surgeries may be required to improve function and/or in some instances to provide better cosmetic effects.

Radiation

This treatment is the use of ionizing radiation to interrupt or slow cellular growth. It may be used to cure, control, or relieve symptoms of cancer. Radiation treatment can be divided into the following two main categories — external and internal.

External Radiation

External radiation is primarily administered with x-ray machines that can produce voltages ranging from thousands to millions of volts. In general, the greater the voltage, the deeper the penetration of radiation.

Nursing Responsibilities of External Radiation Patients

- Prevent skin breakdown.
    - Take care not to remove the markings on the skin that guide the radiologist.
    - Be careful not to apply any solutions (including alcohol), ointments, or powders that contain heavy metals such as zinc.
    - Do not remove crusts from skin.
    - Keep dressings loose. Use nonirritating tape and avoid pulling on affected skin.
    - Teach the patient
        - + to avoid constricting clothing or friction of any kind on affected skin
        - + to avoid exposing affected skin to extremes of heat and cold
    - Keep skin clean.
- Decrease occurrence of nausea and vomiting.
    - Encourage patient to lie still before and after meals.
    - Encourage frequent small meals during the day.
    - Administer medications as ordered.
    - Ask dietician to visit with patient about dietary preferences.
- Prevent infection.
    - Use good hand-washing techniques.
    - Administer antibiotics as ordered.
    - Teach patient and family about avoiding persons with upper respiratory infections such as colds, sinusitis, etc.

Internal Radiation

Internal radiation is administered through the use of temporary or permanent implants. It is intracavity, interstitial, parenteral, or oral. Implants are sutured into the tumor. Some implants are "seeded," meaning that small beads of radioactive material are scattered into the tumor and may remain indefinitely. Parenteral or oral preparations are known as radioactive isotopes and are used to treat such cancers as thyroid, leukemia, and myeloma.

Nursing Responsibilities for Internal Radiation Patients

- Teach the patient and family
  - to establish a routine care schedule that minimizes exposure time but maintains quality patient care
  - to expect that isolation is temporary
  - to assist in notifying family and friends regarding visiting restrictions (no pregnant women allowed in room)
  - to realize that radioactive substances are eliminated in urine primarily (some radioactive substances can also be eliminated in very small amounts through sputum, feces, perspiration, and vomitus).
- Decrease the effects of isolation.
  - Provide time for the emotional and spiritual needs of the patient.
  - Avoid rushing into the room and out again.
  - Provide telephone, radio, television, newspapers, and/or magazines.
  - Encourage craft activities, letter writing, and/or reading materials.
- Promote comfort.
  - Complete bath before scheduled activities or treatments.
  - Maintain fresh linens and proper pillow positioning.
  - Maintain a comfortable room temperature.
  - Maintain fresh water in pitcher.
  - Place call light and phone within easy reach.

Chemotherapy

This treatment is the use of medications or chemicals to encourage death of cancerous cells by interrupting cellular functions such as reproduction. There are numerous chemotherapeutic drugs. The means by which they destroy cancer cells vary, as do the side effects these drugs cause. Chemotherapy is primarily used on cancers which are systemic or widespread, rather than on isolated or localized tumors which are better treated by surgery or radiation. It may be used to cure, control, or relieve symptoms of cancer.

Routes of administration for chemotherapy include the following: topical, oral, intramuscular, subcutaneous, intravenous, arterial, intracavitary, and/or intrathecal.

⚠ **CAUTION:** Only specially trained or certified nurses should be involved with venipuncture and with the administration of chemotherapeutic agents.

Nursing Responsibilities for Chemotherapy Patients

- Prevent infection.
  - Use good hand-washing techniques.
  - Teach the patient and family proper hand-washing techniques.
  - Encourage thorough oral hygiene with a soft toothbrush.
  - Inspect mouth daily for ulcers and/or white patches.
  - Apply lip balm or lubricant to prevent drying and cracking.
  - Avoid use of enemas, rectal medications, or rectal thermometers.
  - Teach the proper perineal hygiene.
  - Instruct the family and friends not to visit if they are ill.
  - Hospital staff members who are ill should not provide care.

- Promote hydration and nutrition.
  - Encourage patient to drink some fluids every hour.
  - Encourage patient to rest quietly before and after meals.
  - Encourage frequent, small meals during the day.
  - Administer medications as ordered.
  - Ask dietician to visit with patient about dietary preferences.
  - Determine from patient the best time for food and fluid intake in relation to treatment.
- Prevent skin breakdown.
  - Observe IV site for any signs or symptoms of infiltration or extravasation.
  - Keep skin clean.
  - Assess comfort level and reposition patient accordingly.
- Provide emotional support.
  - Allow patient to express feelings about body image changes and possible hair loss.
  - Explain that drug-induced hair loss is only temporary.
  - Teach relaxation techniques and imagery, if appropriate (refer to Unit V).
  - Assess comfort level and medicate as ordered.

Immunotherapy

Immunotherapy uses agents or methods that can alter or change the immunologic relationship between the tumor and the patient to offer a therapeutic advantage. The primary purpose of immunotherapy is to destroy or discontinue malignant growth. Years of research have revealed a better understanding of the role the body's natural immune system plays in its defense against cancer. Based upon this understanding, immunotherapy restores, stimulates, or enhances the patient's natural immune system's defenses to facilitate elimination of cancerous cells. Immunotherapy is used to cure and control cancerous growth.

Nursing Responsibilities for Immunotherapy Patients

The nursing responsibilities for immunotherapy patients are the same as those for chemotherapy patients, previously discussed.

OBJECTIVE 8

Select true statements concerning safety guidelines for oncologic nurses.

Safety is a primary concern for nurses providing oncologic treatment. In the specialty of oncologic care, safety guidelines are crucial for the nurse's protection. Caution should be used in all aspects of patient care delivery.

While the institution's safety guidelines will provide nurses with information about precautions during treatments, nurses should realize that the effects of some oncological treatments are still unknown.

The nurse's best source of information about the known effects of oncologic agents the nurse will contact during treatment of patients are the Material Safety Data Sheets (MSDS) on file for each agent at the institution. The nurse should be familiar with each MSDS for the various oncologic treatment agents used in the nurse's institution.

The four areas of oncologic treatment for which you should review safety information and practices are surgery, radiation therapy, chemotherapy, and immunotherapy.

Surgery

- Follow the institution's safety guidelines.
- Practice universal precautions.
- Review the institution's surgical safety policy and procedures.

Radiation therapy

- Review the institution's radioactive materials handling policy and procedures.
- Follow the institution's safety guidelines while handling radioactive materials.
- Administer radiation therapy only if qualified.
- Wear a dosimeter in radiation therapy treatment areas.

- Review MSDS for each radioactive substance approved for use at the institution.

- Practice universal precautions.

Chemotherapy

- Review the institution's chemotherapy policy and procedures.

- Follow the institution's safety guidelines while handling or administering chemotherapy agents.

- Practice universal precautions.

- Administer chemotherapy treatment only according to prescription.

- Review MSDS for each chemotherapy substance approved for use at the institution.

Immunotherapy

- Review the institution's immunotherapy policy and procedures.

- Follow the institution's safety guidelines while handling or administering immunotherapy agents.

- Practice universal precautions.

- Administer immunotherapy treatment only according to prescription.

- Review MSDS for each immunotherapy substance approved for use at the institution.

OBJECTIVE 9 **Select true statements concerning safety guidelines for oncologic patients.**

Safety of the patient is a primary concern for nurses providing oncologic treatment. In the specialty of oncologic care, safety guidelines are crucial for the patient's protection. Caution should be used in all aspects of patient care delivery.

While the institution's safety guidelines will provide nurses with information about precautions during treatments, nurses should realize that the effects of some oncological treatments are still unknown.

The nurse should perform a safety assessment of the oncologic patient. The collection of a database concerning environmental, physical, and mental safety will be used in identifying problems during the course of treatment.

Interview and record

Interview the patient and record the patient's past history:

- Environmental factors that may affect health status, such as allergies and food preferences.
- Types of accidents and illnesses and accident proneness
- Necessary physical aids needed, such as walkers, hearing aids, dentures, etc.

Assess

- How safe the patient feels in the hospital
- Environmental factors that could affect the patient's safety (i.e., arrangement of furniture and equipment, electrical connections, spilled liquids, contaminated materials, warnings and cautions posted, etc.)
- Position of bed, side rails, call light within reach, necessary personal articles within reach, wastebasket within reach, etc.
- Patient's ability to protect self from harm
- Patient's ability to perform daily functions without assistance or level of assistance needed
- Physical factors, such as restraints, effects of medication, pain, etc.
- Mental factors, such as disorientation, anxiety, fear, mistrust, confusion, etc.

Administer

- Medications as ordered
- Treatments as ordered, using principles of safety

  NOTE: Administer radiation therapy only if trained and qualified. Administer chemotherapy and immunotherapy only as prescribed.

Perform or provide

- Identification of all patient's charts and records
- Identification of patient preceding any medication or treatment
- Assistance in daily functions
- Proper disposal of biohazardous waste
- Isolation or reverse isolation precautions
- Alignment and positioning of patient in bed
- Assistance with bed side rails and adjustment
- Restraints as ordered, following principles of safety
- Levels of precaution for oxygen use
- Treatment and care using medical asepsis or sterile techniques
- Honest answers to patient's questions

Teach patient/family

- Use of call light, TV, bed adjustment, telephone
- Evacuation routes in case of fire or disaster

OBJECTIVE 10

Select true statements about the side effects or complications of oncologic treatments and the types of pharmacologic agents used to control, alleviate, or prevent them.

Numerous side effects occur as the result of oncologic treatments. While the listing here is not comprehensive in nature, the nurse should be aware that these are the side effects seen most frequently in the care of the patient with cancer. Some side effects, while frequent in nature, cannot be alleviated by medications and will require strong support from significant others and continued encouragement from the nurses delivering care. These side effects involve the patient's body image and include weight changes, alopecia (hair loss), and sexual dysfunction.

Many of the side effects or complications of oncologic treatments are addressed in Objective 7 of this unit and in other units in the curriculum. Those side effects and complications described in this objective require special attention from the oncologic nurse.

Dysphagia (difficulty swallowing)

Dysphagia may be an interim side effect of chemotherapy or radiation to the throat or chest area. It can also be caused by an infection of the mouth or esophagus, such as thrush. The potential for **strangulation** is present, and this condition warrants very close observation by the nurse.

Intervention includes antifungal agents to swish and swallow (or spit) or a local anesthetic such as viscous lidocaine to relieve pain. Because dysphagia is temporary, it usually resolves with treatment.

Stomatitis (mouth sores)

Stomatitis may be an irritation, a rash, or actual ulcerations of the mouth. The sores may appear bright red or as white patches and often occur a week or two after chemotherapy or radiation therapy. They generally take two to four weeks to heal.

Intervention, other than good oral hygiene with a soft brush and nonabrasive toothpaste, can include the use of carbamide peroxide for cleansing (or hydrogen and water), attapulgite rinse, sucralfate rinse, or swabbing the thickened portion with aluminum hydroxide-magnesium or magnesium carbonate (after settling out) onto the sore areas. All of these interventions are based on the medication ordered by the physician.

Skin color changes

Skin color changes are generally more pronounced from radiation, but they frequently occur from chemotherapy also. Skin color may be yellow, orange, blue, red, or any variation. Itching is a common feature of discolorations, and intervention includes the application of soothing skin lotions such as calamine, witch hazel or ointment for rashes. Antipruritic agents may also be ordered by the physician to relieve itching.

⚠ **CAUTION:** Combinations of those products described in Skin Color Changes should not be used unless specifically ordered by the physician. If in doubt about the use of more than one agent or lotion at a time, consult a pharmacist.

OBJECTIVE 11

Select nursing interventions to assist patients and their families throughout an oncologic illness.

For many patients, cancer results in anxiety, fear, and other emotional responses that may affect the outcome of treatment. Both terminal and nonterminal cancer patients and their families may go through any or all of the stages of grief as a result of the diagnosis and treatment. The nurse's understanding and feelings about cancer and the grieving process will help the nurse become aware of the recurrences, side effects, emotional upsets, and common misconceptions about cancer.

The grieving process progresses through five stages, normally called the "stages of grief." Grief is the patient's reaction or emotional response to the actual or anticipated loss of a person, body part, or thing that is greatly valued.

The five stages of grief are

- Denial
- Anger
- Bargaining
- Depression
- Acceptance

Assess for

- Feelings of fatigue, anxiety, sadness, anger, alienation, guilt, worthlessness, emptiness, anguish
- Behaviors, such as loss of appetite, loss of interest in appearance, crying, withdrawal, blaming, repetitive speech, irritation
- Coping mechanisms used at each stage of grief

Perform or provide

- Allowance for the patient's expression of feelings
- Attentive listening
- Privacy
- Willingness to be present and helpful
- Acceptance of grief behaviors exhibited
- Support without confrontation
- Assurance that the grieving process is normal and accepted
- Time for support
- Assistance during the acceptance stage to changes in life-style and physical appearance
- Encouragement as the patient seeks independence in carrying out personal care and responsibilities

Nurses should evaluate their own emotional response to cancer by

- Keeping current on information and studies about cancer
- Becoming involved in prevention activities
- Assisting the R.N. to individualize the patient's plan of care
- Evaluating the interventions for their effectiveness by talking with the patient, the family, and the R.N., and then modifying the interventions appropriately

OBJECTIVE 12

List common resources for oncologic patients and their families.

There are many support groups and organizations available to assist cancer patients and their families, allowing them to live as full and comfortable a life as possible.

Available clubs and organizations

- American Cancer Society
- Cansurmount
- I Can Cope

- Ostomy Club
- Laryngectomy Club
- Reach to Recovery
- Leukemia Society of America
- Make Today Count
- Hospice
- United Cancer Council, Inc.
- The Concern for Dying
- Cancer Care, Inc.
- TOUCH
- Cancer Call PAC (People Against Cancer)
- Cancer Information Service
- Cancer Response Service
- Candlelighters Childhood Cancer Foundation
- National Coalition for Cancer Survivorship
- Make a Wish Foundation

To obtain information, addresses, or telephone numbers for any of the resources listed, contact the social services department in your facility.

ASSIGNMENT SHEET 1

Development of:
READING SKILLS
ORAL COMMUNICATION SKILLS

- Introduce the assignment to the students by discussing why reading and oral communication skills are important.
- Discuss with them the following skills which are relevant to this task:

  READING

  - Locating resources
  - Using audiovisual media

  ORAL COMMUNICATION

  - Applying questioning techniques
  - Communicating with professional colleagues/associates
  - Conducting/receiving interviews

- If students have difficulty locating resources:
  - Discuss different ways of obtaining information.

    EXAMPLES: Current publications, interviews, science and information television stations, video library
  - Invite a librarian to discuss available resources and how to use them.
- If students have difficulty using audiovisual media:
  - Instruct them to listen and watch carefully, noting key ideas.
  - Remind them that they are required to gather information, not just watch for entertainment.
  - Remind them that important points are often repeated.

- If students have difficulty applying active listening skills:
  - Stress the importance of focusing on the speaker.
  - Remind students that maintaining eye contact enhances listening ability.
  - Instruct them to practice concentrating on the speaker and ignoring common distractions.
  - Suggest that they be ready to listen before beginning communication.
- If students have difficulty applying questioning techniques:
  - Instruct them to be prepared and have their questions organized before communication begins.
  - Stress the importance of accurate questioning to obtain information.
- If students have difficulty conducting/receiving interviews:
  - Remind them to organize their thoughts and questions before the interview begins.
  - Remind them to familiarize themselves with background information on the subject to be discussed and the person to be interviewed.
  - Review oral communication and interpersonal or relating skills.
  - Discuss with them the fact that interviewing sometimes makes people nervous. Remind them that the interview is a conversation.
  - Remind them of the importance of being a good listener.
  - Remind them not to get so intent on asking all their questions that they fail to hear all the answers.
- If students have difficulty communicating with or interacting with professional colleagues/associates:
  - Review listening skills.
  - Review questioning techniques.
  - Remind them that professional colleagues/associates are one of the best sources of information.

ASSIGNMENT SHEETS 2 & 3

Development of:
READING SKILLS
WRITING SKILLS
SCIENCE SKILLS
CREATIVE THINKING/PROBLEM SOLVING SKILLS
EMPLOYABILITY SKILLS
SOCIAL STUDIES SKILLS

- Introduce the assignment to the students by discussing why reading, writing, science, creative thinking, employability, and social studies skills are important.
- Discuss with them the following skills which are relevant to this task:

READING

- Gaining factual information
- Drawing conclusions based on reading

WRITING

- Completing forms and records

SCIENCE

- Investigating/applying principles of human development
- Investigating health issues

CREATIVE THINKING/PROBLEM SOLVING

- Collecting/recording information
- Identifying critical elements/issues
- Analyzing/synthesizing information
- Drawing conclusions
- Creating a finished product
- Developing an action plan

EMPLOYABILITY

- Mastering a specific job task/procedure
- Practicing good work habits/attitudes

SOCIAL STUDIES

- Investigating and applying principles of psychology

- If students have difficulty gaining factual information:
    - Suggest that they read carefully, noting key words and ideas.
    - Instruct them to write questions about the topic before they start reading and to look for the answers as they read.
    - Suggest that they use at least three resources so the key ideas are repeated in their reading.
- If students have difficulty drawing conclusions:
    - Have students list what is known.
    - Have students identify what is indicated by the information presented.
    - Have students list possible conclusions and determine why each is or is not probable.
- If students have difficulty completing forms and records:
    - Examine the structure of the forms being used.
    - Stress the importance of accurate, legible records.
- If students have difficulty investigating/applying principles of human development or investigating health issues, refer them to general texts, magazines, and videotapes in the oncology unit and to individuals who can act as resources.
- If students have difficulty collecting/recording information:
    - Instruct them to watch, listen, and read carefully to obtain information.
    - Stress the importance of accuracy in recording information.

- If students have difficulty identifying critical elements/issues:
  - Instruct them to listen or watch carefully for clue words that suggest a critical issue is being presented.

    EXAMPLE: Patient: A woman at work had breast cancer and she said *her* husband said it didn't matter.
  - Suggest that they list the questions they hope to answer.
- If students have difficulty analyzing/synthesizing information:
  - Remind them that to analyze information, they must break the information down into all its components in order to understand it.
  - Remind them that to synthesize information, they should put all the components together in a way that makes the information usable.
- If students have difficulty drawing conclusions, direct them to examine the data and look for patterns, the range of ideas expressed, the language used, and to use their informed thinking to connect information into a probable conclusion.
- If students have difficulty creating a finished product:
  - Review the analysis and synthesis of information to determine whether the conclusions are correct.
  - Review the action plan to determine whether it will bring the desired results.
  - Discuss the way in which the finished product is organized.
- If students have difficulty developing an action plan:
  - Instruct them to list their goals.
  - Discuss the steps necessary to attain the goals.
  - Instruct them to arrange the steps in a logical order.
- If students have difficulty mastering a specific job task/procedure:
  - Emphasize that practice makes a person proficient and proficiency makes a person confident.
  - Suggest that they study each component of the procedure to determine which area is causing difficulty.

  - Review the entire procedure.
  - Team students having difficulty with proficient students or professionals to practice the procedure.

- If students have trouble investigating and applying principles of psychology:
  - Review to Maslow's Hierarchy and other pertinent theories.
  - Refer students to easily available resources for additional research and encourage them to look up popular magazine articles on the problem and related areas.
  - Suggest that they role-play people with different needs or a nurse interacting with patients with different needs.
  - Encourage them to listen to the language used, observing body language and nonverbal behavior to help understand the patient.

ASSIGNMENT SHEET 1

PROVIDING CARE FOR THE ONCOLOGY PATIENT

Name ____________________ Score __________

OBJECTIVE 13 **Research local community resources for oncologic patients and their families.**

INTRODUCTION In this assignment, you will gather information about one organization, group, or program. You may obtain information from pamphlets, from audio or video tapes, or from volunteers or representatives of the organization, group, or program you choose.

Select one of the following:

American Cancer Society
I Can Cope
Cansurmount
Ostomy Club
Laryngectomy Club
Reach to Recovery
Leukemia Society of America
Make Today Count
Hospice
United Cancer Council, Inc.
Cancer Care, Inc.
The Concern for Dying
TOUCH
Cancer Call PAC
Childhood Cancer Foundation
Candlelighters
National Coalition for Cancer Survivorship
Make a Wish Foundation
Cancer Information Service
Cancer Response Service

BEST COPY AVAILABLE

DIRECTIONS

Research information about the purpose, membership, funding, services offered, and length of service to the community or state for the organization you selected, then answer the following questions.

A. What is the primary purpose of the organization?

B. Who can become part of the organization?

C. How is it funded? Are the workers paid or volunteer? Describe.

D. What service(s) does the organization or program provide?

E. How long has the organization served the community, state, nation? Explain its history.

F. What additional information did you find interesting?

Research and Reference Skills
- Locate resources
- Use audiovisual media

Listening Skills
- Apply active listening skills

Interactive Communication Skills
- Apply questioning techniques
- Conduct/receive interviews
- Communicate with professional colleagues/ associates

ASSIGNMENT SHEET 2

PROVIDING CARE FOR THE ONCOLOGY PATIENT

IV

Name ____________________ Score __________

OBJECTIVE 14

Formulate a plan of care for the oncologic patient undergoing treatment.

INTRODUCTION

The diagnosis of cancer is often accompanied by a variety of emotional upsets, changes in daily routines or activities, and alterations in body image and physical comfort. The patient and all of the significant others will have to make physical, psychological, and social adjustments.

The nurse plays a key role in assisting the patient and family through these periods of transition and/or adjustment. This role begins on the day of admission to the hospital or clinic and can continue over a span of several years.

It is essential, then, that the nurse identify problems or potential problems, relate those problems to appropriate nursing diagnoses, plan appropriate interventions, and evaluate interventions for the expected outcomes. If necessary, the nurse must be prepared to try an assortment of interventions.

When formulating a plan of care, the nurse must keep in mind the multidimensional aspects of a person, Maslow's Hierarchy of Needs, and the patient's stage of growth and development.

DIRECTIONS

Read the following scenario and formulate a plan of care for this oncologic patient based on the information in the scenario.

A 50-year-old woman has been admitted and you are her nurse. You have taken the patient's personal and medical histories and have reviewed her medical records. From these sources, you have the following information on which to base your plan of care.

The patient has been married for 27 years and has two grown children. She works as a librarian and, except for her deliveries, has never been hospitalized. At the age of 35 she was diagnosed as having fibrocystic breast disease, a non-malignant condition. She has been receiving annual physical exams to monitor her condition. During her most recent exam, three weeks prior to her admission to the hospital, her doctor noticed a suspect breast tumor. Subsequent biopsy confirmed the presence of cancer.

Reading Comprehension Skills
- Gain factual information
- Draw conclusions

Functional Writing Skills
- Complete forms and records

BEST COPY AVAILABLE

Life Science Skills

- Investigate/apply principles of human development
- Investigate health issues (medical, ergonomic, nutrition, mental health)

Cognitive Activities Skills

- Collect/record information
- Identify critical elements/issues
- Analyze/synthesize information
- Draw conclusions
- Create a finished product (written, oral, practical)
- Develop an action plan

Job Acquisition/ Development Skills

- Master specific job task/procedure
- Practice good work habits/attitudes

Social Studies Application Skills

- Investigate/apply principles of psychology

The patient is scheduled for a left radical mastectomy tomorrow morning.

During your interview you also learn that the patient was adopted and has no information concerning genetic-family history. You also notice the following behaviors: She appears cheerful, with little apparent anxiety about the procedure, though she does express concerns about the post-operative pain and changes in her physical appearance. You notice that the patient eats little of her meals, but when her husband visits she asks him for snacks, usually chocolate. You note that her husband visits her regularly throughout the day and learn that both her children live too far away to arrive until after the surgery.

ASSIGNMENT SHEET 3

PROVIDING CARE FOR THE ONCOLOGY PATIENT

Name ______________________ Score __________

OBJECTIVE 15

Formulate a plan of supportive care for the advanced oncologic patient.

INTRODUCTION

Providing care for the oncologic patient in the advanced stages of illness presents special challenges. Areas of primary concern include safety, comfort, prevention of numerous secondary problems, palliative treatment, and increased needs of the significant others.

As previously discussed, the formulation of a plan of care should include the multidimensional aspects of the patient, Maslow's Hierarchy of Needs, and the patient's stage of growth and development.

DIRECTIONS

Read the following scenario and formulate a plan of care for the patient as he becomes combative and has increasing shortness of breath and constant headaches. He can no longer swallow, walk, or recognize family members.

The patient is a 75-year-old white male who has been married 57 years. He has been admitted for further diagnostic testing as a result of "confusion, shortness of breath, severe headaches, dizziness, and blurred vision."

The patient was diagnosed with nasopharyngeal carcinoma over eight months ago. The primary tumor cannot be assessed because of extremely poor cell differentiation. The patient has received radiation treatment to the base of the skull because the malignant growth is inoperable. Repeated brain scans have shown marked decrease in the size of tissue mass. However, metastasis into the brain and the lungs is suspected at this time.

His wife states that the patient has been eating but has difficulty swallowing and "eats slowly." He is reported to be incontinent frequently of both bladder and bowels. He walks "short distances" but requires the assistance of two people. He "enjoys sitting up in his chair and watching TV."

Reading Comprehension Skills
- Gain factual information
- Draw conclusions

Functional Writing Skills
- Complete forms and records

Life Science Skills
- Investigate/apply principles of human development
- Investigate health issues (medical, ergonomic, nutrition, mental health)

BEST COPY AVAILABLE

Cognitive Activities Skills

- Collect/record information
- Identify critical elements/issues
- Analyze/synthesize information
- Draw conclusions
- Create a finished product (written, oral, practical)
- Develop an action plan

Job Acquisition/ Development Skills

- Master specific job task/procedure
- Practice good work habits/attitudes

Social Studies Application Skills

- Investigate/apply principles of psychology

BEST COPY AVAILABLE

PROVIDING CARE FOR THE ONCOLOGY PATIENT

ASSIGNMENT SHEET 1

Answers will vary by student according to the student's choice of organization. The instructor should be familiar with each support organization in order to evaluate the student's response.

ASSIGNMENT SHEET 2

Answers will vary by student but should include the following:

- Student should identify potential problems.
- Student should relate potential problems to an appropriate nursing diagnosis.
- Student should plan, evaluate, and identify expected outcomes of appropriate interventions.

ASSIGNMENT SHEET 3

Answers will vary by student but should include the following:

- Student should identify potential problems.
- Student should relate potential problems to an appropriate nursing diagnosis.
- Student should plan, evaluate, and identify expected outcomes of appropriate interventions.

WRITTEN TEST

PROVIDING CARE FOR THE ONCOLOGY PATIENT

IV

Name ______________________ Score __________

OBJECTIVE 1

Match terms associated with care of oncologic patients to their correct definitions. Write the correct letters in the blanks.

Part I

_____ 1. The cessation or disappearance of symptoms

_____ 2. The study of tumors

_____ 3. Drugs which aid in tumor cell death and interfere with cellular functions and reproduction

_____ 4. Loss of appetite

_____ 5. An antibody which has a specific toxic action upon cells

_____ 6. Treatment that stimulates an immune response

_____ 7. The use of ionizing radiation to interrupt cellular growth

a. alopecia

b. anorexia

c. antineoplastic drugs

d. carcinogen

e. cytotoxic

f. immunotherapy

g. malignant

h. oncology

i. radiation therapy

j. remission

k. tumor

May be photocopied for student use.

Part II

_____ 1. A cellular malignancy resulting in unregulated cell growth, lack of differentiation, and ability to invade local tissues and metastasize

_____ 2. A state of inadequate or absent salivary production resulting from the exposure of the salivary glands to radiation

_____ 3. Loss of hair

_____ 4. A compartmentalized association of cells believed to arise from a clone of transformed cells with nonrandom chromosomal abnormalities

_____ 5. The use of medications or chemicals to encourage death of cancerous cells

_____ 6. A state of marked emaciation, weakness, malnutrition resulting from increased metabolic demands of the tumor, impaired glucose metabolism, altered lipid metabolism, competition of tumor cells for nutrients, and failure of appetite

_____ 7. A state characterized by cells which lack differentiation but have the properties of invasion and metastasis

a. alopecia

b. antineoplastic drugs

c. cachexia

d. cancer

e. carcinogen

f. chemotherapy

g. malignant

h. neoplasm

i. remission

j. tumor

k. xerostomia

May be photocopied for student use.

PART III

_____ 1. The state of non-malignancy

_____ 2. The transfer of cells from one organ or part of the body to another not directly connected to it

_____ 3. Any agent or substance that causes cancer

_____ 4. An examination of the breasts using a mammogram

_____ 5. Excision of tissue from a living patient for diagnostic study

_____ 6. Any new and abnormal growth, specifically a new growth of tissue, in which the growth is uncontrolled and progressive

_____ 7. An in-home program designed for patients in advanced stages of a terminal disease

a. benign

b. biopsy

c. cachexia

d. carcinogen

e. hospice

f. malignant

g. mammography

h. metastasis

i. neoplasm

j. radiation therapy

k. tumor

May be photocopied for student use.

OBJECTIVE 2

Select true statements about the pathophysiology of benign and malignant neoplasms. Write an "X" in the blank before each true statement.

_____ 1. In malignant neoplasms, cancer cells tend to return after removal.

_____ 2. Benign neoplasms do not metastasize or spread.

_____ 3. In benign neoplasms, cellular growth is rapid.

_____ 4. In most malignant neoplasms, cells are confined and do not spread.

_____ 5. The cells of both benign and malignant neoplasms are well differentiated from surrounding cells.

_____ 6. Malignant neoplasms usually result in death unless neoplasm growth can be controlled.

_____ 7. The cells of benign neoplasms may cause injury if they impede blood flow.

OBJECTIVE 3

Match the classifications of neoplasms with their definitions. Write the letter of the correct term in the blank next to its description.

_____ 1. Cancer of infection-fighting organs

_____ 2. Cancer of the bone, muscle, fat, and connective tissue

_____ 3. Cancer of the blood-forming organs

_____ 4. Cancer of epithelial cells

a. carcinomas

b. sarcomas

c. lymphomas

d. leukemia

May be photocopied for student use.

OBJECTIVE 4

List the seven warning signs of cancer. In the space provided, list the seven warning signs of cancer.

May be photocopied for student use.

OBJECTIVE 5

Select from a list the predisposing factors known to contribute to the development of neoplastic diseases. Write an "X" in the blank before each predisposing factor.

_____ 1. Chronic illness

_____ 2. Tobacco use

_____ 3. Radiation exposure

_____ 4. Bacterial infections

_____ 5. Abnormal chromosomal patterns

_____ 6. Family history

_____ 7. Hormones

_____ 8. Chronic irritation or inflammation

_____ 9. Sexual history

_____ 10. Alcohol consumption

_____ 11. Skin pigmentation

_____ 12. Uranium

_____ 13. Preservatives

_____ 14. Viruses

_____ 15. Radioactive materials

May be photocopied for student use.

OBJECTIVE 6 **Match diagnostic procedures to their purposes.** Write the correct letters in the blanks.

Part I

_____ 1. The study of a sampling of loose cells without the surrounding tissue

_____ 2. Microscopic study of tissue to confirm or disprove malignancy of a neoplasm

_____ 3. Procedure which images movement of a liquid or dye through an organ or body system

_____ 4. Internal assessment through manual palpation to investigate clinical signs and symptoms related to cancer growth

_____ 5. Procedure which images soft tissue in detail

_____ 6. Blood, urine, or chromosomal tests to determine any abnormalities

_____ 7. Procedure which images changes in the breast

a. biopsy

b. CT (computerized tomography)

c. contrast x ray

d. cytology

e. endoscopy

f. laboratory tests

g. mammography

h. nuclear scans

i. physical examination

j. xerography

k. x ray

May be photocopied for student use.

Part II

_____ 1. Internal assessment using flexible, telescope-like instrument

_____ 2. Procedure which images body chemistry without the use of radiation

_____ 3. Procedure which images echoes of sound from tissues

_____ 4. Procedure which images the electromagnetic radiation of radionuclides

_____ 5. Procedure which images bones and chest region

_____ 6. Procedure which images deep parts of the body

a. biopsy
b. CT (computerized tomography)
c. cytology
d. endoscopy
e. MRI (magnetic resonance imaging)
f. mammography
g. nuclear scans
h. physical examinations
i. ultrasound
j. xerography
k. x ray

OBJECTIVE 7

Select true statements about the current treatments used for cancer patients and the nursing responsibilities. Write an "X" in the blank before each true statement.

_____ 1. Ionizing radiation is used to prevent cancer growth.

_____ 2. There are five types of surgical procedures involving cancer patients.

_____ 3. Nursing responsibilities of treatment include observation for signs of hemorrhage and infection.

_____ 4. Surgery involves simply the removal of the tumor.

_____ 5. Radiation may be external, intracavity, interstitial, intravenous, or oral.

_____ 6. Maintenance of skin integrity is a primary nursing responsibility in all areas of cancer treatment.

May be photocopied for student use.

_____ 7. Chemotherapy is used to cure the patient by killing the cancer cells.

_____ 8. Only specially trained nurses should be involved in the administration of antineoplastic drugs.

_____ 9. Immunotherapy is used to relieve cancer symptoms.

_____ 10. Hydration and nutrition are important aspects of care for the cancer patient but not essential nursing responsibilities.

OBJECTIVE 8 **Select true statements concerning safety guidelines for oncologic nurses.** Write an "X" in the blank before each true statement.

_____ 1. An institution's safety guidelines are designed to protect the nurse as well as the patient.

_____ 2. The effects of all oncologic treatment agents are well documented.

_____ 3. The initials MSDS stand for Material Safety Data Sheets.

_____ 4. Most institutions do not keep a file of MSDS for oncologic treatment agents.

_____ 5. During surgery on an oncologic patient, the institution's safety policy does not apply.

_____ 6. Unless assigned to a radiation therapy treatment area on a regular basis, nurses do not need to wear a dosimeter while working in the area.

_____ 7. Only qualified nurses should administer radiation therapy.

_____ 8. MSDS are not available for radioactive substances.

_____ 9. The oncologic nurse should review the institution's radioactive materials handling policy.

_____ 10. The oncologic nurse should practice universal precautions while administering chemotherapy.

_____ 11. MSDS are available for chemotherapy treatment agents.

May be photocopied for student use.

_____ 12. The nurse does not need to review the institution's chemotherapy policy; the nurse merely needs to administer the therapy according to orders.

_____ 13. The nurse does not need to follow universal precautions when administering immunotherapy.

_____ 14. The nurse should administer immunotherapy treatment only according to orders.

_____ 15. The nurse's best source of information about the known effects of oncologic treatment agents are MSDS.

OBJECTIVE 9

Select true statements concerning safety guidelines for oncologic patients. Write an "X" in the blank before each true statement.

_____ 1. Safety of the patient is a primary concern for the oncologic nurse.

_____ 2. The nurse does not perform a safety assessment of the oncologic patient.

_____ 3. During the patient's history interview, the nurse should record the patient's views on family relationships.

_____ 4. With oncologic patients, the nurse does not need to know about previous illnesses.

_____ 5. The nurse should assess how safe the patient feels in the hospital.

_____ 6. Environmental factors, such as arrangement of furniture, can affect a patient's safety.

_____ 7. The placement of the call light is not a concern for the patient's safety.

_____ 8. Physical factors, such as medication or pain, can affect the patient's safety.

_____ 9. Mental factors, such as fear or disorientation, do not affect a patient's safety.

_____ 10. The nurse should always positively identify the patient before administering any oncologic medications or treatments.

May be photocopied for student use.

_____ 11. The nurse should always properly dispose of biohazardous waste.

_____ 12. The nurse does not need to provide patients with assistance in performing daily functions.

_____ 13. Treatments and medications for oncologic patients should be administered whenever needed.

_____ 14. Asepsis and sterile techniques are not necessary for oncologic patients.

_____ 15. The nurse should assess the patient's ability to protect self from harm.

_____ 16. The nurse should assess the patient's need for personal physical aides, such as hearing aids, walkers, and dentures.

_____ 17. The adjustment of the patient's position in bed or while sitting is the patient's responsibility.

_____ 18. Patients and families do not need to know about evacuation procedures.

_____ 19. The nurse should instruct patients and family on the use of the call light, TV, and telephone.

OBJECTIVE 10

Select true statements about the side effects or complications of oncologic treatments and the types of pharmacologic agents used to control, alleviate, or prevent them. Write an "X" in the blank before each true statement.

_____ 1. Dysphagia may be alleviated with local anesthetics or antifungal agents.

_____ 2. Stomatitis may be alleviated by using carbamide peroxide, attapulgite rinse, or sucralfate rinse.

_____ 3. Itching is a common feature of skin color changes, and may be alleviated with topical anesthetics.

May be photocopied for student use.

OBJECTIVE 11

Select nursing interventions to assist patients and their families throughout an oncologic illness. Write an "X" in the blank before each true statement.

_____ 1. The grieving process progresses through five stages.

_____ 2. The nurse assesses for feelings of lethargy, tiredness, and disinterest in the environment.

_____ 3. The nurse assesses for behaviors such as loss of appetite, crying, and withdrawal.

_____ 4. The nurse provides assurance that the grieving process is normal and accepted.

_____ 5. The nurse should prevent the patient from carrying out personal care during treatment.

_____ 6. The nurse should keep current on information and studies about cancer.

_____ 7. Nurses should put aside their own emotional responses to cancer while caring for oncologic patients.

_____ 8. Evaluating oncologic interventions is only the R.N.'s responsibility.

_____ 9. The nurse should accept the grief behaviors exhibited by the oncologic patient.

OBJECTIVE 12

List common resources for oncologic patients and their families. In the space provided below, list at least eight resources available to cancer patients and their families.

____

____

____

____

____

____

____

May be photocopied for student use.

NOTE: Objectives 13-15 are evaluated on assignment sheets in this unit. If you have not completed these components, see your instructor.

May be photocopied for student use.

WRITTEN TEST ANSWERS

PROVIDING CARE FOR THE ONCOLOGY PATIENT

IV

OBJECTIVE 1

Part I		Part II		Part III	
1.	j	1.	d	1.	a
2.	h	2.	k	2.	h
3.	c	3.	a	3.	d
4.	b	4.	j	4.	g
5.	e	5.	f	5.	b
6.	f	6.	c	6.	i
7.	i	7.	g	7.	e

OBJECTIVE 2

1, 2, 6, 7

OBJECTIVE 3

1. c
2. b
3. d
4. a

OBJECTIVE 4

Answers should include all of the following:

- Changes in bowel and bladder habits
- A sore that does not heal
- Unusual bleeding or discharge
- Thickening or lump in breast or elsewhere
- Indigestion or difficulty in swallowing
- Obvious change in wart or mole
- Nagging cough or hoarseness

OBJECTIVE 5 2, 3, 5, 7, 8, 9, 10, 11, 12, 14, 15

OBJECTIVE 6

Part I		Part II	
1.	d	1.	d
2.	a	2.	e
3.	c	3.	i
4.	i	4.	g
5.	j	5.	k
6.	f	6.	b
7.	g		

OBJECTIVE 7 2, 3, 5, 6, 8

OBJECTIVE 8 1, 3, 7, 9, 10, 11, 14, 15

OBJECTIVE 9 1, 5, 6, 8, 10, 11, 15, 16, 19

OBJECTIVE 10 1, 2

OBJECTIVE 11 1, 3, 4, 6, 9

OBJECTIVE 12 Answer should include at least eight of the following:

American Cancer Society
I Can Cope
Cansurmount
Ostomy Club
Laryngectomy Club
Reach to Recovery
Leukemia Society of America
Make Today Count
Hospice
United Cancer Council, Inc.
Cancer Care, Inc.
The Concern for Dying
TOUCH
Cancer Call PAC

Cancer Information Service
Cancer Response Service
Candlelighters Childhood Cancer Foundation
National Coalition for Cancer Survivorship
Make a Wish Foundation

OBJECTIVE SHEET

PROVIDING CARE FOR THE PATIENT WITH PAIN

V

INTRODUCTION

"Nurse, I need something for pain."

"I know I had a shot an hour ago, but I can't wait any longer."

"Nurse, this medicine is not helping my pain."

Pain is a universal human experience, and it is the most common reason that people look for sources of health care.

A nurse will face the issue of pain on a daily basis. A nurse must be knowledgeable about the care of people with pain, whether patients, family, friends, or themselves.

A nurse's beliefs about pain and pain relief directly affect the approach or approaches used in caring for patients with pain.

UNIT OBJECTIVE

After completing this unit, the student will be able to apply pain management techniques and to evaluate and itemize patient responses to them. The student will demonstrate these competencies by completing assignment sheets and the written test with a minimum of 85 percent accuracy.

PREREQUISITES

Body Structure and Function
Mental Health (recommended)
  "Therapeutic Communication"
Nursing Principles and Skills
  "Positioning of Patients"
  "Administration of Back Massage"
  "Application of Heat and Cold"

SPECIFIC OBJECTIVES

After completing this unit, the student will be able to:

1. Match terms associated with pain to their correct definitions.

2. Match categories of pain with their correct definitions.

3. Describe additional classifications of pain.

4. Define the three phases of pain.

5. List factors that affect a patient's reaction to pain.

6. Differentiate between objective and subjective data in the nursing assessment of a patient with pain.

7. Describe the potential effects of prolonged and unrelieved pain on a patient.

8. Distinguish between physically noninvasive and invasive pain management techniques.

9. Describe psychological pain management techniques.

10. Match terms associated with pharmacological pain management to their correct definitions.

11. Select from a list key concepts for analgesic therapy.

12. Describe the mode of action for each category of pharmacological pain control.

13. Distinguish among indications for use and potential side effects of each of the three main categories of pharmacological pain control.

14. Name three common drugs for each category of pharmacological pain control.

15. Select from a list indications for the use of adjuvant analgesics.

16. List common classifications of the adjuvant analgesics and one drug specific to each of the four classifications.

17. Use an initial pain assessment tool to measure a patient's level of pain. (Assignment Sheet 1)

18. Evaluate a patient's response to pain management techniques by using a pain flowsheet. (Assignment Sheet 2)

PROVIDING CARE FOR THE PATIENT WITH PAIN

PREPARATION

- Review the unit and plan your presentation.
- Order materials to supplement the unit.
- Review teaching suggestions and plan classroom activities.
- Order films and videos.
- Invite guest speakers.

  NOTE: Please provide the guest speaker with the specific topic relevent to the unit of instruction ahead of time. You may want to supply the objective sheet, information sheet, and any other components you want the speaker to cover. Confirm each scheduled appearance two to three days prior to the presentation.

- Obtain models and large posters of the various pain management equipment and supplies. (Examples: acupuncture needles, PCA pumps, TENS units)
- Make a poster that illustrates, in words or pictures, psychological pain management techniques.
- Make a poster illustrating, in words or pictures, pharmacological pain management techniques.
- Design a bulletin board that illustrates acute and chronic pain.
- **HOSA** Integration
  - Assist students in conducting a chapter service project related to children's Miracle Network Telethon. Discuss how pain is often one aspect of treatment for many children this fundraiser benefits.
  - Plan a medical spelling bee; include definitions, characteristics of pain, and pain management techniques.
  - Ask students to write an essay on "The Meaning of Pain to You," according to competitive guidelines.
  - Ask students to prepare and give a one-minute speech on "Caring for the Patient in Pain." (This speech may be extemporaneous.)

DELIVERY

- Discuss this unit's goals and objectives.

- Have a speaker from a pain clinic discuss the nurse's role in pain management.

Objective 1: Match terms associated with pain to their correct definitions.

- Have students create flash cards on terms and definitions; then have them drill one another.

Objective 2: Match categories of pain with their correct definitions.

- Have students create flash cards on categories and descriptions; then have them drill one another.

- Have students begin a bulletin board showing acute and chronic pain.

- Show *Chronic Pain.*

Objective 3: Describe additional classifications of pain.

- Have students create flash cards on categories and descriptions; then have them drill one another.

Objective 4: Define the three phases of pain.

- Have students provide examples from personal experience and discuss the three phases of pain.

Objective 5: List factors that affect a patient's reaction to pain.

- Have students provide examples from personal experience and discuss factors that affect a patient's reaction to pain.

- Assist students in identifying their own values about pain in themselves and in others.

- Assist them in recognizing their own coping mechanisms when they are in pain.

Objective 6: Differentiate between objective and subjective data in the nursing assessment of a patient with pain.

- Have students provide examples from personal experience and discuss ways they have previously assessed pain.

- Have the students help identify the types of information that a nurse would need to collect from a person experiencing pain.

- Have the students complete Assignment Sheet 1.

- Have the students use the Wong/Baker Faces Scale to describe personal experiences with pain. The Faces Scale is available in *Clinical Handbook of Pediatric Nursing*.

Objective 7: Describe the potential effects of prolonged and unrelieved pain on a patient.

- Have students provide examples from personal experience and discuss any effects of prolonged and unrelieved pain.

- Have the students help identify the effects of pain by asking them to think of someone they know, or have known, who suffers from continuous pain or discomfort.

- Have the students prepare and give a one-minute speech on caring for the patient in pain.

Objective 8: Distinguish between physically noninvasive and invasive pain management techniques.

- Have students brainstorm a list of noninvasive and invasive pain management techniques. Supplement the students' list as needed.

- Show *Controlling Pain*.

- Have students divide into groups and demonstrate the various noninvasive techniques.

- Schedule a field trip to a chiropractor or physical therapist and demonstrate pain management techniques to the students.

- Have a speaker from a pain clinic or a surgeon come to describe the various invasive procedures performed to control pain.

- Have students become familiar with applying and removing a TENS unit. Information on TENS units is available in *Clinical Manual for Nursing Practice*.

Objective 9: Describe psychological pain management techniques.

- Have students describe personal experiences using biofeedback or distraction techniques to manage pain.

- Have students participate in a guided imagery exercise.

- Have a speaker from a pain clinic or a psychiatric unit that specializes in biofeedback come to demonstrate pain control techniques to the class.

- Obtain Biodots for each student and describe the rationale for their use in relaxation. Have the students check them periodically throughout the class period.

- Have the students hear, see, and feel the effects of relaxation techniques by participating in an exercise.

Objective 10: Match terms associated with pharmacological pain management to their correct definitions.

- Have students create flash cards with terms and definitions; then have them drill one another.

Objective 11: Select from a list key concepts for analgesic therapy.

- Have students describe any personal experiences with the three concepts for analgesic therapy.

- Show *Patient-Controlled Analgesia: A Nursing Perspective* and *Epidural Pain Management: A Nursing Perspective.*

Objective 12: Describe the mode of action for each category of pharmacological pain control.

- Discuss the three main categories of pharmacological pain control, the level of nervous system each affects, and the mode of action of each category.

- Have a pharmacist come to speak to the class on NSAIDs (prescription and non-prescription), narcotics, combinations of the two, and common adjuvant analgesics. Include any drug interactions that might take place.

- Have students read the article, "Administering Analgesics: Which Drugs are Right For Your Patient?" in the April 1990 issue of *Nursing90.*

Objective 13: Distinguish indications for use and potential side effects of each of the three main categories of pharmacological pain control.

- Have students create flash cards with indications for use and side effects; then have students provide the correct drug.

Objective 14: Name three common drugs for each category of pharmacological pain control.

- Have students create flash cards of the over-the-counter and prescription drugs used for pain management. Then have them identify the drug category.

Objective 15: Select from a list indications for the use of adjuvant analgesics.

- Have students create flash cards of the generic drugs; then have them identify the adjuvant analgesics.

- Discuss the indications for use of adjuvant analgesics.

Objective 16: List common classifications of the adjuvant analgesics and name one drug specific to each of the four classifications.

- Discuss the main classifications of the different adjuvant analgesics and common drugs for each classification.

- Discuss the possible side effects.

APPLICATION

Objective 17: Use an initial pain assessment tool to measure a patient's level of pain.

- Discuss Assignment Sheet 1. Have students identify examples of information they might collect from patients with various types of pain.

- Display posters and bulletin boards with information about pain.

Objective 18: Evaluate a patient's response to pain management techniques by using a pain flowsheet.

- Discuss Assignment Sheet 2. Have students complete pain flow sheet and document patient response to pain control measures.

EVALUATION

Pretest

- Give written test as pretest.

- Determine individual study requirements from pretest results.

- Counsel students individually on pretest results and study requirements.

- Modify materials in unit or create supplementary materials for individual students as required.

Written Test

- Explain to students that they will be asked to demonstrate the written test actions listed in the specific objectives.
- Evaluate students on assignment sheet activities if not previously completed.
- Give the written test.

NOTE: The written test may be given in sections if desired.

- Reteach and retest if necessary.
- Complete appropriate section of competency profiles.
- Review individual and group performance in order to evaluate teaching methods. Adjust scope, sequence, or instructional approaches for additional lessons as required.

SUGGESTED RESOURCES

Electronic Media

- *Patient-Controlled Analgesia: A Nursing Perspective* (VHS, 20 min.)
- *Epidural Pain Management: A Nursing Perspective* (VHS, 20 min.)

The above videos are available from:

Concept Media
P.O. Box 19542
Irvine, CA 92713
(800) 233-7078

- *Controlling Pain* (VHS, 19 min.)
- *Chronic Pain* (VHS, 26 min.)

The above videos are available from:

Films for the Humanities & Sciences, Inc.
P.O. Box 2053
Princeton, NJ 08542
(800) 257-5126

Microfilm

- *Biodots*

The above microfilm is available from:

Biodots International, Inc.
P.O. Box 2246
Indianapolis, Indiana 46206

Print Media

- McCaffery, Margo and Alexandra Beebe. *Pain Clinical Manual for Nursing Practice*. C.V. Mosby Co.: St. Louis, MO, 1989.
- Wong, Donna and Lucille Whaley. *Clinical Handbook of Pediatric Nursing*. C.V. Mosby Co.: St. Louis, MO, 1986.

UNIT REFERENCES

- Beebe, Alexandra, Ralph E. McBride, and Peter Gal. "Pain: Its Assessment and Treatment," *The Journal of Practical Nursing*, June 1989.
- Brunner, Lillian Shotis and Doris Smith Suddarth. *Textbook of Medical-Surgical Nursing* (6th ed.). J.B. Lippincott Co.: Philadelphia, 1988.
- *Cancer Pain Relief*. World Health Organization: Geneva, 1986.
- Dernham, Pamela. "Phantom Limb Pain," *Geriatric Nursing*, January/February 1986.
- Dove, Judy. "Update on Pain Therapy (Part 1)," *The Journal of Practical Nursing*, December 1987.
- Ferrante, F. Michael, Gerard W. Ostheimer, and Benjamin G. Covino (eds.). *Patient-Controlled Analgesia*. Blackwell Scientific Publications: Boston, 1990.
- Hegner, Barbara and Esther Caldwell. *Assisting in Long-Term Care*. Delmar Publishers, Inc.: Albany, NY, 1988.
- Hood, Gail Harkness and Judith R. Dincher. *Total Patient Care: Foundations and Practice*, (7th ed.). C.V. Mosby Co.: St. Louis, MO, 1988.
- Jones, Linda and Joseph Brooks. "The ABC's of PCA." *RN*. May 1990.

- Kemp, Brenda Bigelow, Adele Pillitteri, and Patricia Brown. *Fundamentals of Nursing: A Framework for Practice* (2 ed). Scott, Foresman and Co.: Glenview, IL, 1989.

- Kozier, Barbara, Glenora Erb, and Patricia McKay Buffalino. *Introduction to Nursing*. Addison-Wesley Publishing Co.: Redwood, CA, 1989.

- McCaffery, Margo and Alexandra Beebe. *Pain Clinical Manual for Nursing Practice*. C.V. Mosby Co.: St. Louis, MO, 1989.

- McCaffery, Margo and Betty Ferrell. "Do You Know a Narcotic When You See One?" *Nursing90*, June.

- McEvoy, Gerald K., Gary M. McQuarrie, and Joan DePietro Heydorn, (eds.). *American Hospital Formulary Service DRUG INFORMATION 87*. American Society of Hospital Pharmacists: Bethesda, MD, 1987.

- McGuire, Lora. "Administering Analgesics: Which Drugs are Right for Your Patient?" *Nursing90*, April.

- Narrows, Barbara and Kay Brown Buschle. *Fundamentals of Nursing Practice*, (2d ed.). John Wiley and Sons: NY, 1987.

- Noah, Veronica A. "Preop Teaching is the Key to PCA Success," *RN*, May 1990.

- Pearson, Betty D. "Pain Control: An Experiment with Imagery," *Geriatric Nursing*, January/February 1987.

- Perry, Anne G. and Patricia A. Potter. *Clinical Nursing Skills and Techniques: Basic, Intermediate, and Advanced*. C.V. Mosby Co.: St. Louis, MO, 1986.

- Puntillo, Kathleen A. *Pain Control in Critical Care Nursing*. Aspen Pub.: Gaithersburg, MD, 1991.

- Sundeen, Sandra J., Rankin Gail Wiscarz Stuart, Elizabeth Anne DeSalvo, and Sylvia Ann Cohen. *Nurse-Client Interaction: Implementing the Nursing Process*, (4th ed.). C.V. Mosby Co.: St. Louis, MO, 1988.

- Tartaglia, Michael J. "Managing Chronic Cancer Pain Effectively (Part 2: What You Need to Know)," *NursingLife*, Skill booklet, September/October 1987.

- Thompson, June M., Gertrude K. McFarland, Jane E. Hirsch, Susan M. Tucker, and Arden C. Bowers. *Mosby's Manual of Clinical Nursing*, (2d ed.). C.V. Mosby Co.: St. Louis, MO, 1989.

OBJECTIVE 1

Match terms associated with pain to their correct definitions.

- **addiction** – compulsive use of a habit-forming chemical for its psychic effects, not for approved medical reasons
- **algology** – the study of pain
- **guarding** -- a state of physical protectiveness or defensiveness against pain or additional discomfort to a part of the body
- **intractable pain** – severe and constant pain, resistant to relief measures
- **invasive** – to enter into the body
- **noninvasive** – not requiring entry into the body
- **pain** – the state in which an individual experiences and reports the presence of severe discomfort or an uncomfortable sensation
- **pain management** – management of a patient's pain, including teaching the patient about pain, scheduling medications, and using nonpharmacological relief methods.
- **pain perception** – the point at which a given stimulus is felt as painful
- **pain tolerance** – the duration or intensity of pain that a person is willing to endure

  NOTE: A high pain tolerance means that pain must be very intense or last a long time before the person finds it intolerable. A low pain tolerance means that mild or brief pain is intolerable.

- **physical dependence** – altered state produced by repeated administration of a chemical; withdrawal symptoms occur if the chemical is abruptly stopped
- **placebo** – a medication, procedure, or surgery used for its psychological effect in a patient or as a control, not because of its nature or its therapeutic properties
- **splinting** – to secure or hold in a manner to maintain a part of the body in a fixed position with an intent to prevent pain

- **tolerance** – altered state produced by repeated administration of a chemical; a given dose begins to lose its effectiveness resulting in the need for larger and larger doses

  NOTE: The first indication of tolerance is decreased duration, then decreased pain relief.

- **wane** – to become less intense or approach an end

- **wax** – increase in strength or intensity

OBJECTIVE 2

Match categories of pain with their correct definitions.

Pain is a universal experience, occurring in ages from the very young to the very old. It is the most frequent reason that people seek health care. An understanding of the types of pain encountered by a nurse is vital to patient assessment and nursing intervention.

- **acute pain** – state in which an individual experiences pain that subsides as healing takes place. It is of brief duration (less than six months). Its onset may be slow or sudden and may range in intensity from mild to severe.

  EXAMPLES: pin prick, fractured bone, streptococcal throat infection, post-operative pain

- **chronic pain** – state in which an individual experiences prolonged pain (usually six months or longer)

- **recurrent acute pain** – self-contained episodes of pain that can be predicted to end, but have a potential for recurrence over a lifetime or prolonged period.

  EXAMPLES: migraine headaches, sickle cell crisis.

- **ongoing time-limited pain, chronic malignant pain** – occurs almost daily, has a potential for lasting months, sometimes years before the condition either has a cure or is controlled, but it has a high probability of ending.

  EXAMPLES: cancer, burns

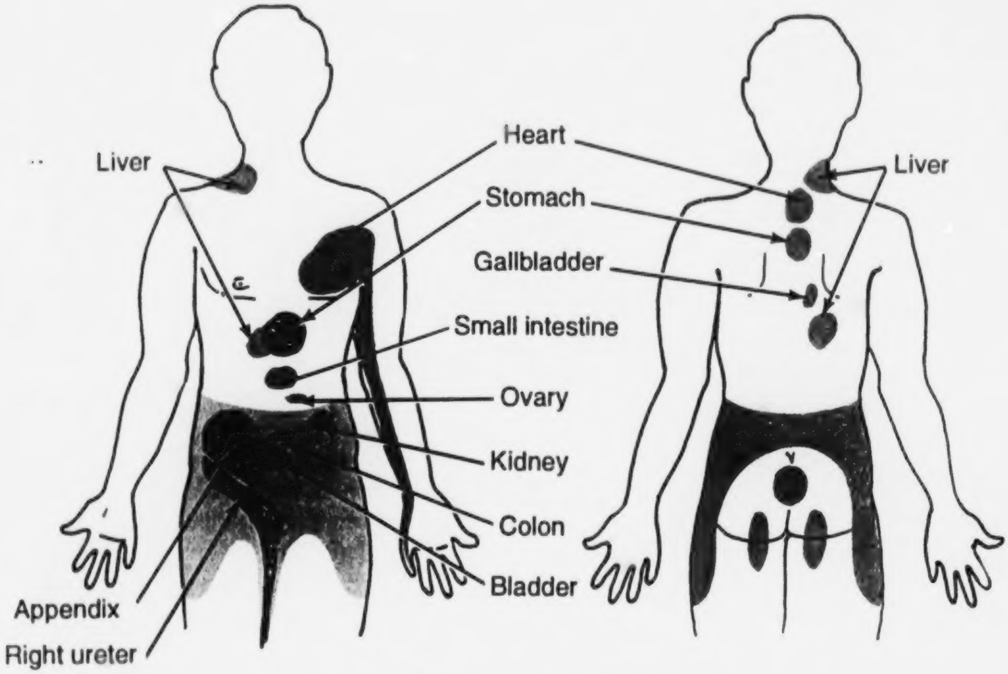
- **chronic nonmalignant pain or chronic benign pain** – occurs almost daily, has existed six months or longer, and ranges in intensity from mild to very severe. Characteristics: unresponsive to current methods of relief, can continue for the remainder of a patient's life.

  EXAMPLES: phantom limb pain, rheumatoid arthritis, low back pain

OBJECTIVE 3 **Describe additional classifications of pain.**

- **Superficial** – occurs when the skin or surface structures are affected by a painful stimulus. Generally localized at the site of stimulation. The sensation is usually described as prickling or burning.
- **Deep** – occurs when deeper structures like muscles or visceral tissues are affected. Generally poorly localized and described as dull and aching. This type of pain is often felt at a site distant from the area of stimulation.
- **Referred** -- term given to deep pain felt at a site distant from the area of stimulation. It is projected from various internal organs of the body to the body surface. Example: cardiac pain arises in the heart but radiates to the jaw, left upper arm, and epigastric region.

FIGURE 1



AREAS OF REFERRED PAIN

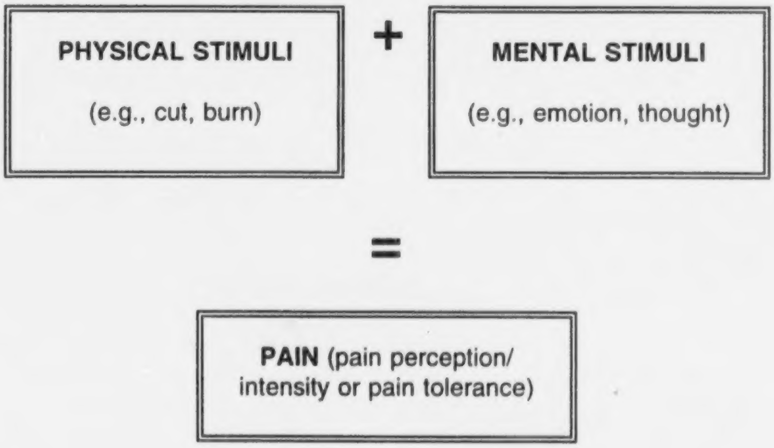
OBJECTIVE 4 **Define the three phases of pain.**

1. **Anticipation** – These behavioral responses indicate fear of approaching pain, and have a significant effect on a patient's response to the sensation of pain.

2. **Sensation** – These are the behavioral responses during which pain is felt.

3. **Aftermath** – These behavioral responses follow cessation of the pain sensation and can include feelings of fear, embarrassment, and guilt.

FIGURE 2



Pain is usually a combination of physical and mental experiences. It is uncommon for pain to be simply physical or simply mental. Pain occurs from an overall body response.

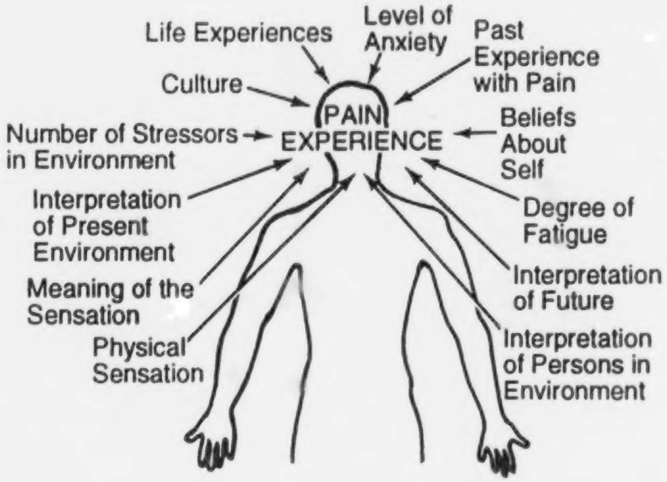
OBJECTIVE 5 **List factors that affect a patient's reaction to pain.**

The pain experience is totally individualized. Just as patients with the same diagnosis do not respond in the same manner to a disease process, patients vary in their reactions to painful sensations. Some of the factors which influence an individual's reaction to pain include the following:

- Phase of pain
- Intensity of pain
- Type of pain (i.e., intermittent vs. continuous)
- Patient's tolerance for pain
- Effects of pain on daily living
- Level of stress
- Degree of fatigue

- Level of anxiety or fear
- Personal expectations and beliefs
- Cultural influences
- Past experiences with pain
- Support system

FIGURE 3



OBJECTIVE 6 **Differentiate between objective and subjective data in the nursing assessment of the patient with pain.**

Objective Data

- Elevated blood pressure
- Increased pulse rate
- Increased respiratory rate
- Diaphoresis
- Dilated pupils
- Pallor
- Vomiting
- Dry mouth
- Change in appetite
- Irritability
- Muscle tenseness
- Weight change
- Insomnia or short sleep cycles
- Shortened attention span

- Combative, or inappropriate behavior
- Fatigue or weakness
- Altered time perception
- Change in menstrual cycle
- Impaired thought processes
- Guarding position, holding or rubbing of painful part
- Grimacing, crying, frowning, moaning

NOTE: This list includes data on both chronic and acute pain. Not all symptoms may be observed with every pain patient.

Subjective Data

- Verbalization of pain
- Nausea
- Preoccupation with pain

NOTE: A lack of pain expression does not mean a lack of pain.

OBJECTIVE 7

Describe potential effects on the patient of prolonged and unrelieved pain.

Initially, severe, acute pain can result in shock. Most patients, however, make relatively successful adaptations to pain. Others, especially those with chronic pain, are unable to do so and are burdened with numerous problems.

Potential effects on the patient of prolonged and unrelieved pain include

Physical – arising from immobility or lack of activity

- Weakness
- Muscle atrophy
- Loss of appetite
- Constipation
- Respiratory complications
- Sleep disorders

Psychological – arising from continuous discomfort

- Decreased self-esteem
- Depression
- Anxiety
- Hostility
- Irritability
- Dependence
- Loneliness
- Boredom

Social

- Altered interpersonal relationships
- Decreased social contact and/or isolation
- Inability to hold a job resulting in loss of income
- Inability to maintain one's role within the family

Spiritual

- Questioning of faith
- Unresolved anger toward a Higher Power

OBJECTIVE 8

Distinguish between physically noninvasive and invasive pain management techniques.

The nurse's role in the care of people with pain usually includes carrying out pain relief methods with and for the patient, identifying the need for change or additional methods, obtaining them, and evaluating patient response.

Physical pain management techniques include both noninvasive and invasive procedures. Deciding which pain control measure to use with which patient can be difficult. This is due to the fact that the experience of pain is highly individual. Regardless, pain management techniques must be evaluated continuously for their appropriateness and effectiveness for each individual patient.

> **NOTE:** Many of the following techniques must be ordered for a patient by a physician because their use or purpose is dependent upon a patient type or source of pain. Prescribing treatment for a patient's illness or injury is a physician's responsibility.

NONINVASIVE PAIN MANAGEMENT TECHNIQUES		
PROCEDURE	**EXPLANATION**	**INFORMATION**
CUTANEOUS STIMULATION	Stimulating the skin for the purpose of relieving pain.	
Acupressure	Stimulation with pressure and/or massage to acupuncture points.	Between 500 and 800 points were identified over 5000 years ago by cultures of the Far East. (Refer to acupuncture.)
Cold Application	Probably works best for localized pain. Cold has more advantage than heat because it reduces inflammation and swelling and produces more of an anesthetic effect.	Should be covered with a cloth to prevent tissue damage and to maintain comfort. Flexible cold packs can be used on sprains, over an incision, for a headache, for rhinoplasty.
Heat Application	Heat produces more side effects such as burns, bleeding, and swelling.	Patients usually prefer heat to cold. May be contraindicated for some patients.
Ice Application	May be used for localized, severe pain. It is effective on needle sticks.	**Caution**: Do not use for more than 10 minutes. A frozen substance applied to the skin is uncomfortable until numbness occurs.
Massage	For relief of mild pain. The pain does not need to be localized. Use powder or lotion to reduce friction.	Time consuming, but provides both a relaxing and distracting response.
Menthol	Application of menthol-containing substances to the skin. Provides prolonged stimulation without additional effort.	Used more in Asian cultures.
Physical Therapy	The use of stretching and strengthening exercises so that muscle, nerve, and tissue function can be restored.	
Positioning	Turning, moving, or re-aligning a patient to increase circulation and reduce pain and/or pressure.	
Transcutaneous Electric Nerve Stimulation (TENS)	Method of applying controlled, low-voltage electricity to the body via electrodes placed on the skin.	Uses a small, battery operated, portable unit.
Vibration	A vigorous form of massage that may be more effective than hand massage.	Low risk of tissue damage. It may be used over acupuncture points.

INVASIVE PAIN MANAGEMENT TECHNIQUES

NONSURGICAL TECHNIQUES **PROCEDURE**	**EXPLANATION**	**INFORMATION**
Acupuncture	Long, slender needles are inserted into the body at identified sites which are not always near the body part being treated.	Used for over 5000 years in China. Currently used in the U.S. for chronic pain.
NEUROSURGICAL PROCEDURES		
Cordotomy	Severing of the spinal cord. Obliterates pain and temperature sensation below severed point.	Usually done for intractable pain in the trunk and legs.
Rhizotomy	Severs nerve roots between the ganglion and the spinal cord. Severed anterior (motor) root controls spastic movements caused by paraplegia; posterior (sensory) eliminates pain in area innervated by that nerve.	Generally used for intractable pain of the head or neck caused by cancer or neuralgia.
Neurectomy	Severs peripheral or cranial nerves.	Used for localized pain such as that occurring following vascular occlusion.
Sympathectomy	Interrupts the sympathetic division of the autonomic nervous system.	Effective in painful vascular disorders such as angina or Raynaud's disease. Eliminates vasospasm and improves peripheral blood flow.

OBJECTIVE 9 Describe psychological pain management techniques.

A number of mental activities can be used to help the patient focus attention on sensations other than pain. The nurse must be knowledgeable of the various pain control measures to assist patients in their understanding and use of the measure appropriate for them. The nurse must be able to teach those techniques which decrease fear and anxiety.

- **biofeedback** – a system that allows a person to control certain physical body functions such as temperature, heart rate, and muscle tension. Sensors are placed on the body and the information gained is displayed on a monitor screen or indicated by an auditory signal. This type of pain management is particularly helpful for pain related to muscle tension.

- **distraction** – focusing attention on stimuli other than pain sensation. This makes pain more bearable, but does not make the pain go away. It is frequently used for brief episodes of pain. Examples include asking a child to say "ouch" while giving an injection, basic breathing techniques taught in prepared childbirth classes, or asking elderly people about their grandchildren while starting an IV.

  Distraction may include laughter, music, television, movies, coloring pictures, visiting with family and friends, or listening to someone read. It should be an activity that the patient enjoys doing.

- **hypnosis** – a state of intense, narrowly focused concentration with diminished peripheral awareness very similar to normal, everyday thinking. Hypnosis is not loss of consciousness, nor is it always initiated by someone else.

- **imagery** – the use of mental images (visualizing, daydreaming, or fantasizing) to control pain or stress. Imagery has proved an effective control with both acute and chronic pain. Its effectiveness may result from a decrease in the patient's perception of the intensity of pain. There is a sizeable amount of similarity between imagery, distraction, and relaxation. Imagining is a type of thinking that many of us use frequently. Imagery techniques date back hundreds, if not thousands, of years.

- **relaxation** – a state of relative freedom from both anxiety and muscle tension. Relaxation should produce a response which results in a decrease in the following:

  - oxygen consumption
  - respiratory rate
  - heart rate
  - muscle tension
  - blood pressure (in patients with high blood pressure)

  For patients with pain, the advantages of using relaxation techniques is the correlation between pain, anxiety, and muscle tension. Typical responses to pain are

  - anxiety-like feelings (i.e. fear, apprehension, panic)

  - muscle tension (i.e. restricted movement, grinding teeth)

  Anxiety and muscle tension intensify pain and each other. Relaxation techniques are meant to interrupt this cyclical process.

OBJECTIVE 10

Match terms associated with pharmacological pain management to their correct definitions.

The nurse plays a key role in assuring appropriate pain control for patients experiencing unrelieved pain. With regard to pharmacological intervention, the nursing process includes the following: choosing the analgesic, determining whether to give it, evaluating its effectiveness, and obtaining any changes in analgesics or dosages, as necessary.

The nurse must have knowledge of analgesics and their specific uses in a variety of patient situations. The nurse must also have an understanding of the pharmacological terms associated with pain management.

- **agonist** – a drug capable of activating a receptor to produce a complete or partial response

- **analgesic** – a drug that relieves pain

- **antagonist** – a drug capable of activating a receptor to counteract the effects of another drug

- **anti-inflammatory** – a drug that decreases swelling, which in turn reduces pressure and pain

- **antipyretic** – a drug that relieves or reduces temperature (fever)

- **nonsteroidal** – a drug that relieves inflammation by means other than suppressing the body's immune system
- **potentiate** – an effect resulting from the combination of two drugs which makes the overall action greater than just one drug by itself
- **titrate** – the process of increasing or decreasing a drug in solution (such as blood circulation) to produce a particular effect

OBJECTIVE 11

Select from a list key concepts for analgesic therapy.

Three key concepts for analgesic therapy apply to acute and chronic pain in patients.

- **Preventive approach**

  Analgesics are administered at intervals around-the-clock. This method maintains the analgesic level in the blood stream at an adequate level.

- **Titrated approach**

  Patients are evaluated frequently to determine the effectiveness of medication on their pain. The dosage is adjusted as necessary. It may be necessary to reduce an analgesic for a patient's safety; too much may overly sedate a patient. Likewise, it may be necessary to increase an analgesic if it is not providing effective relief for a patient's pain.

- **Patient-controlled approach**

  Patients who meet criteria for self-administering their own analgesia are given the opportunity for direct control (patient-controlled analgesia, or PCA). Even children as young as four or five are mentally and physically capable of understanding and operating a PCA pump and are allowed to manage their pain.

  Patient monitoring should be conducted on a regular basis and documented. It is recommended that documentation occur at least every four hours, unless hospital protocol indicates more frequent occurrences. Documentation is to include

  - Volume delivered since last notation
  - Total number of PCA doses delivered since last notation
  - Sedation level

- Analgesia level

- Respiratory rate

OBJECTIVE 12 **Describe the mode of action for each category of pharmacological pain control.**

- **nonnarcotics or nonsteroidal anti-inflammatory drugs (NSAIDs)** – These drugs work primarily at the peripheral nervous system level. The mode of action is three dimensional: anti-inflammatory, analgesic, and antipyretic.

- **narcotics or opiates** – These drugs work primarily at the central nervous system level. There are two types of narcotics or opiates: narcotic agonist and narcotic agonist-antagonists. Mode of action for both types of narcotics relieve pain by attaching to opiate receptor sites located in the brain and spinal cord. In addition, narcotic agonist-antagonists are capable of blocking the analgesic effect of pure narcotics in an action similar to that of naloxone which is used as an antidote for a narcotic overdose or over-sedation.

  NOTE: Narcotics are not to be combined or a variety of narcotics may not be alternated in the treatment of patients with pain. The use of one narcotic one time and a different narcotic the next time could antagonize each other, resulting in **no pain relief at all** as well as confused side-effects.

- **narcotic analgesic combinations** – These combination drugs work on both the peripheral and central nervous systems. They provide a safe and logical method of pain relief. Mode of action would include those of NSAIDs (anti-inflammatory, analgesic, and antipyretic) as well as those for narcotics or opiates (relief of pain by attaching to opiate receptor sites).

OBJECTIVE 13 **Distinguish among indications for use and potential side effects of each of the three main categories of pharmacological pain control.**

USES AND COMPLICATIONS		
DRUG	**INDICATIONS FOR USE**	**SIDE EFFECTS**
Nonnarcotics or NSAIDs	Mild to moderate pain • Postoperative pain (episiotomy, herniorrhaphy, tooth extraction, and some orthopedic procedures) • Cancer (bone tumors and bone metastases) • Other (low back pain, menstrual cramps, migraines)	• Gastrointestinal (mucosal irritation, stomach cramps, gastric bleeding, diarrhea) • Circulatory (Anticoagulation) • Urogenital (dysuria, cystitis, hematuria) • Nervous (headaches, irritability, depression)
Narcotics or Opiates	• Acute, short-term pain • Postoperative pain • Visceral pain • Severe pain syndrome	• CNS depression • Nausea and vomiting • Constipation • Opiod-type dependence
Narcotic analgesic combinations	Potentiates effects of narcotics and provides the same effect as a larger dose of narcotic without the side effects	Side effects of both nonnarcotics–NSAIDs and narcotics or opiates

The relief of cancer pain relies on the concurrent and sequential use of a series of treatment procedures, which must be adapted to the needs of the particular patient. While complete pain relief is not always possible, the method can be used to help all patients considerably.

The nurse should have a sequence of specific aims for relief of cancer pain. Those aims should include

- Increase the hours of pain-free sleep
- Relieve the pain when at rest
- Relieve pain on standing or activity

The use of analgesic drugs is the mainstay of cancer pain intervention. A three-step analgesic ladder is suggested by the World Health Organization. The three standard drugs making up this ladder are nonnarcotics or NSAIDs, narcotics or opiates, and narcotic analgesic combinations.

STEP 1: In patients with mild pain, nonnarcotics or NSAIDs will be adequate.

STEP 2: In patients with moderately severe pain, if nonnarcotics or NSAIDs do not provide adequate relief, a narcotic or weak opioid may be prescribed.

STEP 3: In patients with severe pain, stronger opioids or narcotics in combination with analgesics may be used.

OBJECTIVE 14 **Name three common drugs for each category of pharmacological pain control.**

DRUGS USED FOR PAIN CONTROL		
DRUG	**OVER-THE-COUNTER**	**PRESCRIPTION**
Nonnarcotic or NSAIDs	• Aspirin • Acetaminophen • Ibuprofen	• Ibuprofen • Naproxen • Indomethacin • Trilisate
Narcotics or Opiates	• NONE	• Morphine Sulfate • Hydromorphone • Codeine • Methadone
Narcotic Analgesic Combinations	• NONE	• Oxycodone and acetaminophen • Oxycodone and aspirin • Propoxyphene and acetaminophen • Propoxyphene, aspirin, caffeine • Codeine and acetaminophen • Hydrocodone ditartrate and acetaminophen

OBJECTIVE 15 **Select from a list indications for use of adjuvant analgesics.**

Adjuvant analgesics are drugs that are not classified pharmacologically as analgesics but are used alone or in combination with narcotics to relieve pain.

NOTE: Their use is dependent on careful assessment of the patient and accompanying symptoms by a physician.

The following are indications for use of adjuvant analgesics:

- When narcotic or nonnarcotic use is limited by side effects or they do not provide adequate relief (neuropathic pain)
- When sleeplessness accompanies increased anxiety and pain
- When sharp, shooting, or piercing pain is present (i.e., trigeminal neuralgia)
- When dull aching or burning pain is present (i.e., diabetic neuropathy)
- When pain results from bone metastasis or nerve compression

OBJECTIVE 16 **List common classifications of the adjuvant analgesics and one drug specific to each of the four classifications.**

CLASSIFICATIONS OF ADJUVANT ANALGESICS	
ADJUVANT ANALGESICS	**DRUGS**
Antidepressants	• Amitriptyline HCl • Doxepin HCl • Imipramine HCl • Desipramine HCl • Fluoxetine HCl • Fenoprofen
Anticonvulsants	• Phenytoin sodium • Carbamazepine • Valproic acid
Antispasmodics	• Baclofen • Cyclobenaprine HCl • Orphenadrine citrate
Corticosteriods	• Dexamethasone
Stimulants	• Methylphenidate HCl • Dextroamphemine sulfate
Antihistamines	• Hydroxyzine HCl • Diphenhydramine HCl
Benzodiazapines	• Diazepam • Chlordiazapoxide HCl • Alprazolam • Lorazepam • Oxazepam • Temazepam
Antipsychotics	• Haloperidol

ASSIGNMENT SHEET 1

Development of:
READING SKILLS
WRITING SKILLS
SCIENCE SKILLS
CREATIVE THINKING/PROBLEM SOLVING SKILLS
EMPLOYABILITY SKILLS

- Introduce the assignment to the students by discussing why reading, writing, science, creative thinking/problem solving, and employability skills are important.
- Discuss with them the following skills which are relevant to this task:

  READING

  - Gaining factual information

  WRITING

  - Stating ideas clearly
  - Completing forms and records

  SCIENCE

  - Investigating health issues

  CREATIVE THINKING/PROBLEM SOLVING

  - Identifying critical elements/issues
  - Analyzing/synthesizing information
  - Drawing conclusions
  - Creating a finished product

  EMPLOYABILITY

  - Mastering a specific job task/procedure

- If students have difficulty gaining factual information:
  - Suggest that they read carefully, underlining key words and ideas.
  - Instruct them to list the questions they hope to answer.
  - Have students practice identifying similar information presented orally.
  - Group students to allow them to compare interpretations.
- If students have difficulty stating ideas clearly:
  - Suggest that they have their thoughts organized before they begin writing.
  - Review the information, noting the key words and ideas.
  - Discuss the importance of stating the ideas clearly.
  - Instruct them to use simple, concise words.
  - Review proper terminology.
- If students have difficulty completing forms and records:
  - Examine the structure of the forms being used.
  - Stress the importance of accurate, legible records.
  - Review information available from other sources.
  - Have students review the use of the form and the importance of each piece of information.
- If students have difficulty investigating health issues:
  - Have them identify the issues they are considering.
  - Review the use of references to answer questions they may have.
  - Have students suggest alternative ways of asking the patient for information and interpreting patient responses.
- If students have difficulty identifying critical elements/issues:
  - Instruct them to read or examine their sources carefully, noting key words and ideas.

  - Instruct them to listen or watch carefully for clue words that suggest a critical issue is being presented.

    EXAMPLE: Patient: "It really hurts right now, but it hurt more last night. Now I just don't bend it, so it feels better."

  - Suggest they list the questions they hope to answer.

- If students have difficulty analyzing/synthesizing information:

  - Remind them that to analyze information they must break the information down into all its components in order to understand it.

  - Remind them that to synthesize information they should put all the components together in a way that makes the information usable.

  - Have students identify questions which will aid them in analyzing/synthesizing information.

- If students have difficulty drawing conclusions, direct them to examine the collected data and look for patterns, the range of ideas expressed, the language used, patient appearance and responses, and objective data and test results.

- If students have difficulty creating a finished product:

  - Review the analysis and synthesis of information to determine whether the conclusions are correct.

  - Review the action plan to determine whether it will bring the desired results.

  - Discuss the way in which the finished product is organized.

  - Review language skills.

  - Review the requirements of the assignment.

  - Suggest that they use intuitive thinking techniques to formulate an idea.

  - Instruct them to work one step at a time until the project is finished.

- If students have difficulty mastering a specific job task/procedure:

  - Emphasize the fact that practice makes a person proficient and proficiency makes a person confident.

- Suggest that they study each component of the procedure to determine which area is causing difficulty.
- Review the entire procedure.
- Team students having difficulty with proficient students or professionals to practice the job task/procedure.

ASSIGNMENT SHEET 2

Development of:
READING SKILLS
WRITING SKILLS
SCIENCE SKILLS
CREATIVE THINKING/PROBLEM SOLVING SKILLS
EMPLOYABILITY SKILLS

- Introduce the assignment to the students by discussing why reading, writing, science, creative thinking/problem solving, and employability skills are important.
- Discuss with them the following skills which are relevant to this task:

  READING

  - Gaining factual information

  WRITING

  - Completing forms and records

  SCIENCE

  - Investigating health issues

  CREATIVE THINKING/PROBLEM SOLVING

  - Identifying critical elements/issues
  - Analyzing/synthesizing information
  - Drawing conclusions
  - Creating a finished product

  EMPLOYABILITY

  - Mastering a specific job task/procedure

- For suggestions on teaching basic skills, refer to suggestions for Assignment Sheet 1.

ASSIGNMENT SHEET 1

PROVIDING CARE FOR THE PATIENT WITH PAIN

V

Name ______________________ Score ____________

OBJECTIVE 17

Use an initial pain assessment tool to measure a patient's level of pain.

INTRODUCTION

During the assessment process, the nurse collects information from the patient for the purpose of planning and implementing care specific to the need of that patient. A pain-assessment tool assists the nurse in gathering the necessary data in an organized and efficient manner.

DIRECTIONS

Using the scenario below, answer the questions and complete the attached pain assessment tool.

The patient is a 78-year-old male admitted last evening to the surgical unit, room 308. His diagnosis is a fractured right femur and dislocated left shoulder due to a fall. The patient is unable to use numbers to rate his pain. He prefers to use the words: "no pain," "a little pain," "a lot of pain," "too much pain." He states that he is currently in a "a lot of pain," but that the pain has been worse. He relates that he would rather not have any pain; however, he has not been without some pain since his fall yesterday. In describing his sensation of pain in his femur, the patient uses the word "stabbing." He describes the pain in his shoulder as "pulling." He reports that the only medication he has had for pain was the two extra-strength acetaminophen last evening. He insists that his shoulder and leg not be moved, acknowledging that the movement increases the pain. During the course of the conversation, you also discover that his daily exercise includes a two-mile walk, and he is very careful with his low-cholesterol diet. He informs you that he has not eaten since before his fall.

1. State the patient's present pain rating.
2. State the worst the pain has been, according to the patient.
3. State the best the pain has been.
4. State the acceptable level of pain for this patient.
5. The previous four questions relate to the measurement of pain.
6. State the quality of pain both for the femur and shoulder (patient's own description).

Reading Comprehension Skills
- Gain factual information

Language Skills
- State ideas clearly

Functional Writing Skills
- Complete forms and records

Life Science Skills
- Investigate health issues (medical, ergonomic, nutrition, mental health)

Cognitive Activities Skills
- Identify critical elements/issues
- Analyze/synthesize information
- Draw conclusions
- Create a finished product (written, oral, practical)

BEST COPY AVAILABLE

Job Acquisition/ Development Skills

- Master specific job task/procedure

7. Has the onset of the patient's pain varied? Has it come and gone? Has it been continuous?

8. Imagine yourself in the patient's physical state. How do you think you would express your pain? (tears, grimacing, splinting, being quiet, etc.)

9. What has relieved the patient's pain to this point? Has it been relieved?

10. What has the patient indicated increases his pain?

11. Consider what you know about this patient. What effect has pain had on his quality of life?

12. Can you think of anything else from the information you know about the patient that you would consider important enough to include in preparing a plan of care for him? Explain.

13. Fill out the Initial Pain Assessment Tool for the patient. Include both short- and long-term goals in writing this patient's care plan.

INITIAL PAIN ASSESSMENT TOOL

Date ____________________

Patient's Name ______________

Age _________ Room _______

Diagnosing Physician ___________ Diagnosis __________

Nurse ___________________

LOCATION OF PAIN: ____________________________________

____

INTENSITY: Patient rates the pain. Scale used ________________

Present: __________________

Pain at its worst: ______________

Pain at its best: ______________

How much can be tolerated: ________

BEST COPY AVAILABLE

TYPE OF PAIN, ACCORDING TO PATIENT: (prick, ache, burn, throb, pull, sharp)

WHEN, HOW LONG, AND AT WHAT INTERVALS DOES PAIN OCCUR?

HOW DOES PATIENT EXPRESS PAIN?

PAIN IS RELIEVED BY:

PAIN IS WORSENED BY:

BEST COPY AVAILABLE

EFFECT OF PAIN: (Note decreased function, decreased quality of life.)

Other symptoms (e.g. nausea)

Effects on sleep, appetite, physical activity, personal relationships, emotions, level of concentration, etc.

BEST COPY AVAILABLE

Other ______________________________

____

OTHER INFORMATION:

____

____

____

____

____

PLAN OF CARE:

____

____

____

____

____

____

____

ASSIGNMENT SHEET 2

PROVIDING CARE FOR THE PATIENT WITH PAIN

V

Name ______________________ Score __________

OBJECTIVE 18

Evaluate a patient's response to pain management techniques by using a pain flowsheet.

INTRODUCTION

After the nurse has assessed the patient's pain and intervened by providing appropriate pain management techniques, the effectiveness of those techniques must be evaluated.

The best means of evaluating a patient's response to nursing interventions is to actually observe a patient in a clinical setting. Observing allows the practical nursing students to acquaint themselves with a patient in pain, gather data first hand, watch the various techniques used, and evaluate the effectiveness of each technique throughout the process of patient inquiry.

DIRECTIONS

Assign the nursing student a clinical rotation day to observe and evaluate a patient's response to pain management techniques. The pain flow sheet should be completed as part of that rotation. If the assignment is not possible, the student may use the following hypothetical situation to complete the pain flow sheet.

The patient is a 25-year-old white, married mother of two, whose presenting complaints were of "tingling" in her hands and low back "pain." She states that the low back pain has been recurrent since the birth of her last child, who is 18 months old. The "tingling" in the hands is a new occurrence of about two weeks. She cannot recall any single event that may have precipitated an injury to her arms or hands. She does relate that she "carries the baby around all the time." The patient is a homemaker and has never been hospitalized except to give birth to her children. She is worried about her husband, three-year-old daughter, and baby son. She is doubtful that hospitalization will help her at all. Her vital signs upon admission were 140/86-98-20 101 degrees. Following a series of spinal x rays and a myelogram, the physician started the patient on Naprosin (375 mg, BID), acetaminophen (1-2 tabs, q2-4h PRN) for mild pain, and Darvon (65 mg, q4-6h PRN) for moderate to severe pain. The patient prefers to rate her pain using the number scale 0 to 10 (0=no pain, 10=worst pain). She has worn a TENS unit since her admission two days ago. The patient has been assigned to you. As you make rounds at 7:15 a.m., she is experiencing pain "about a 4" on the scale of 0-10.

Reading Comprehension Skills
- Gain factual information

Functional Writing Skills
- Complete forms and records

Life Science Skills
- Investigate health issues (medical, ergonomic, nutrition, mental health)

BEST COPY AVAILABLE

Cognitive Activities Skills

- Identify critical elements/issues
- Analyze/synthesize information
- Draw conclusions
- Create a finished product (written, oral, practical)

Job Acquisition/ Development Skills

- Master specific job task/procedure

She was given Tylenol 2 tabs P.O. at 6:00 a.m. What measures will you take to increase her comfort level prior to breakfast? (Enter this information on the pain flow sheet.) At 9:00 a.m., The patient states that she is experiencing pain in her low back at a rate of "8" and at "5" in her hands and lower arms. Her anti-inflammatory medication is due at 9:00 a.m. What other measures will you use? (Add this to the flow sheet.) At 9:45 the back pain is described as a "6" but the hands and arms remain at "5." What additional techniques or interventions will you try? (Document on flow sheet.) At 10:30 a.m., the patient is sleeping, but arouses as you walk into her room. Her pain is now stated as being a "2" in her back and a "3" in her hands and arms. 11:00 a.m. vitals: 118/70-80-16 97.8 degrees, the patient is alert, talking to her husband. She states that the pain in her back is now a "1" and her hands and arms remain a "3." At 1:00 p.m. the patient's physical therapy on her hands and arms begins. At 2:15 p.m. the patient returns to her room. What measures will you use to provide for the patient's comfort, both before and after physical therapy? (Document on pain flow sheet.) You will be going off duty at 3:15 p.m. Can you think of any measures or techniques you might provide this patient prior to leaving the unit? (Document on pain flow sheet.)

FLOW SHEET - PAIN

Patient _______________ Date ___

*Pain rating scale used
Purpose: To evaluate the safety and effectiveness of the analgesic(s).
Analgesic(s) prescribed: __________

Provide a description of pain relief interventions using the Pain Treatment Flow Chart on the next page.

BEST COPY AVAILABLE

FLOW SHEET—PAIN

Patient ______________________ Date __________

*Pain rating scale used ______________________

Purpose: To evaluate the safety and effectiveness of the analgesic(s).

Analgesic(s) prescribed: ______________________

For Instructional Purposes Only

Time	Pain rating	Analgesic	R	P	BP	Level of arousal	Other†	Plan & comments

*Pain rating: A number of different scales may be used. Indicate which scale is used and use the same one each time. For example, 0-10 (0 = no pain, 10 = worst pain).

†*Possibilities for other columns*: bowel function, activities, nausea and vomiting, other pain relief measures. Identify the side effects of greatest concern to patient, family, physician, nurses.

BEST COPY AVAILABLE

PROVIDING CARE FOR THE PATIENT WITH PAIN

ASSIGNMENT SHEET 1

The nurse should provide the following information in the appropriate sections of the Initial Pain Assessment Tool; answers in other areas will vary according to nurse.

Diagnosis: fractured right femur; dislocated left shoulder

II. **INTENSITY:** used Word Scale
Present: Distressing
Worst pain gets: Horrible
Best pain gets: Discomforting
Acceptable level of pain: No pain

III. **QUALITY:** Femur = "stabbing;" shoulder = "pulling"

IV. **ONSET, DURATION, VARIATIONS, RHYTHMS:** Continuous

V. **MANNER OF EXPRESSING PAIN:** Words

VI. **WHAT RELIEVES THE PAIN?** Acetaminophen reduces pain but does not give complete relief.

VII. **WHAT CAUSES OR INCREASES THE PAIN?** Movement of leg or shoulder

VIII. **EFFECT OF PAIN:** Eliminated daily exercise; affected appetite

ASSIGNMENT SHEET 2

Using the pain flowsheet, the nurse should provide at least the following information:

- **Assess resources for pain management:**
  Naprosin: 375 mg. BID
  Acetaminophen: 1-2 tabs, q2-4h, PRN
  Darvon, 65 mg. q4-6h, PRN

- **Assess at 7:15 a.m.:** pain = 4. Intervention at 6:00 a.m. did not produce satisfactory pain relief. Inadequate analgesia, but cannot give acetaminophen per orders. May change analgesia, per orders. Administer Naprosin.

- **Assess at 9:00 a.m.:** pain = 8 in back, 5 in hands. Intervention at 7:15 a.m. did not produce satisfactory pain relief. Inadequate analgesia. May change analgesia, per orders. Administer Darvon.

- **Assess at 9:45 a.m.:** pain = 6 in back, 5 in hands Intervention appears to be helpful. Optimize analgesic intervals.

- **Assess at 10:30 a.m.:** pain = 2 in back, 3 in hands and arms. Intervention at 9:00 a.m. appears to be helpful.

- **Assess at 11:00 a.m.:** pain = 1 in back, 3 in hands and arms. Satisfactory response to interventions.

WRITTEN TEST

PROVIDING CARE FOR THE PATIENT WITH PAIN

V

Name ______________________ Score __________

OBJECTIVE 1

Match terms associated with pain to their correct definitions. Write the correct letters in the blanks.

Part I

___ 1. The duration or intensity of pain that a person is willing to endure

___ 2. The point at which a given stimulus is felt as painful

___ 3. Altered state produced by repeated administration of a chemical; withdrawal symptoms occur if the chemical is abruptly stopped

___ 4. To become less intense, or approach an end

___ 5. The study of pain

___ 6. Compulsive use of a habit-forming chemical for its psychic effects, not for approved medical reasons

___ 7. To increase in strength or intensity

___ 8. To secure or hold in a manner to maintain a part of the body in a fixed position with an intent to prevent pain

a. addiction

b. algology

c. guarding

d. pain

e. pain management

f. pain perception

g. pain tolerance

h. physical dependence

i. splinting

j. tolerance

k. wanes

l. waxes

May be photocopied for student use

Part II

___ 1. Management of a patient's pain

___ 2. To enter into the body

___ 3. A medication, procedure, or surgery used for its psychological effect in a patient

___ 4. A state of physical protectiveness, or defensiveness against pain or additional discomfort to a part of the body

___ 5. Severe and constant pain, resistant to relief measures

___ 6. Not requiring entry into the body

___ 7. The state in which an individual experiences and reports the presence of severe discomfort or an uncomfortable sensation

___ 8. Altered state produced by repeated administration of a chemical; a given dose begins to lose its effectiveness, resulting in the need for larger and larger doses

a. guarding
b. intractible pain
c. invasive
d. noninvasive
e. pain
f. pain management
g. pain perception
h. pain tolerance
i. placebo
j. tolerance
k. wanes
l. waxes

May be photocopied for student use

OBJECTIVE 2

Match categories of pain with their correct definitions. Write the correct letters in the blanks.

___ 1. State in which an individual experiences pain that subsides as healing takes place and is brief in duration, usually less than six months

___ 2. Pain which occurs almost daily, has existed six months or longer, and ranges in intensity from mild to very severe. Characteristics include: unresponsive to current methods of pain relief, pain may continue for remainder of a patient's life

___ 3. State in which an individual may experience prolonged pain, usually six months or longer

___ 4. Self-contained episodes of pain that can be predicted to end, but have potential for recurrence over a lifetime or prolonged period

___ 5. Pain which occurs almost daily, has a potential for lasting months, perhaps years before the condition is cured or controlled, but has a high probability of ending

a. acute pain

b. chronic pain

c. chronic non-malignant pain

d. ongoing time-limited, chronic malignant pain

e. recurrent acute pain

May be photocopied for student use.

OBJECTIVE 3

Describe additional classifications of pain. In the space below, write a short description of each of the classifications of pain.

1. Referred ____
____
____
____
____

2. Deep ____
____
____
____
____

3. Superficial ____
____
____
____
____

OBJECTIVE 4

Define the three phases of pain. In the space provided, define each phase of pain.

1. Anticipation ____
____
____
____

May be photocopied for student use.

2. Sensation ______________________________

____

____

____

3. Aftermath ______________________________

____

____

____

OBJECTIVE 5

List factors that affect a patient's reaction to pain. In the space provided, list six factors that affect a patient's reaction to pain.

1. ______________________________
2. ______________________________
3. ______________________________
4. ______________________________
5. ______________________________
6. ______________________________

OBJECTIVE 6

Differentiate between objective and subjective data in the nursing assessment of the patient with pain. Put an "O" in the blank next to those items that are characteristic of objective data and put an "S" in the blanks next to those items that are characteristic of subjective data.

_____ 1. Verbalization of pain

_____ 2. Elevated blood pressure

_____ 3. Nausea

_____ 4. Irritability

_____ 5. Weakness

May be photocopied for student use.

_____ 6. Insomnia

_____ 7. Dry mouth

_____ 8. Crying

_____ 9. Vomiting

_____ 10. Increased respirations

OBJECTIVE 7

Describe potential effects on the patient of prolonged and unrelieved pain. In the space provided, describe the effects of prolonged pain for each of the following psychosocial aspects of pain.

1. Physical ____________________

____

____

____

____

2. Psychological ____________________

____

____

____

____

____

____

____

3. Social ____________________

____

____

____

____

4. Spiritual ______________________________________

____

____

OBJECTIVE 8

Distinguish between physical noninvasive and invasive pain management techniques. Put an "N" in the blank next to those techniques which are noninvasive and an "I" in the blank next to those techniques which are invasive.

_____ 1. Heat or cold application

_____ 2. Acupressure

_____ 3. TENS unit

_____ 4. Ice

_____ 5. Acupuncture

_____ 6. Cordotomy

_____ 7. Vibration

_____ 8. Neurectomy

OBJECTIVE 9

Describe psychological pain management techniques. In the space provided, describe three psychological pain management techniques.

1. ______________________________________

____

____

____

2. ______________________________________

____

____

____

May be photocopied for student use.

3. ____

____

____

____

OBJECTIVE 10

Match terms associated with pharmacological pain management to their correct definitions. Write the correct letters in the blanks.

_____ 1. Decreases swelling

_____ 2. Relieves or reduces temperature

_____ 3. Process of increasing or decreasing a substance in solution to produce a particular effect

_____ 4. Relieves pain

_____ 5. A drug capable of activating a receptor to counteract the effects of another drug

_____ 6. Substance that relieves inflammation by methods other than suppressing the body's immune system

_____ 7. An effect resulting from the combination of two drugs which makes the action greater than one substance by itself

_____ 8. A drug capable of activating a receptor to produce a complete or partial response

a. agonist

b. analgesic

c. antagonist

d. anti-inflammatory

e. antipyretic

f. nonsteroidal

g. titrate

h. potentiate

OBJECTIVE 11

Select from a list key concepts for analgesic therapy. For the following items, put an "X" in the blank next to the key concepts for analgesic therapy.

_____ 1. Patient-controlled approach

_____ 2. Nurse regulates medication

_____ 3. Preventive approach

_____ 4. Patient demonstrates presence of pain

_____ 5. Titrate according to effect

OBJECTIVE 12

Describe the mode of action for each category of pharmacological pain control. In the space provided, describe the mode of action for each pharmacological category of pain control.

1. Nonnarcotics or NSAIDs ______________________________

____

____

____

2. Narcotics or opiates ______________________________

____

____

____

3. Narcotic analgesic combinations ______________________

____

____

____

May be photocopied for student use.

OBJECTIVE 13 **Distinguish among indications for use and potential side effects of each of the three main categories of pharmacological pain control.** Put an "N" in the blanks next to those indications or side effects associated with the use of nonnarcotics or NSAIDs; put an "O" in the blanks next to those indications or side effects associated with the use of narcotics or opiates; put an "A" in the blanks next to those indications or side effects associated with the use of narcotic analgesic combinations.

_____ 1. Indication for use is acute, short-term pain.

_____ 2. Side effects include urogenital problems, such as dysuria, cystitis, and hematuria.

_____ 3. Indications for use include cancer pain, such as bone tumors and bone metastasis.

_____ 4. Indications for use are to potentiate the effects of narcotics.

_____ 5. Side effects include gastrointestinal problems, such as stomach cramps.

_____ 6. Indications for use include acute postoperative pain.

_____ 7. Side effects include irritability, depression, and headaches.

_____ 8. Side effects include most side effects of NSAIDs, narcotics, and opiates.

_____ 9. Indications for use may include lower back pain or migraines.

_____ 10. Side effects include nausea, vomiting, and constipation.

OBJECTIVE 14 **Name three common drugs for each category of pharmacological pain control.** In the space provided, name three common drugs for each category of pharmacological control.

1. Nonnarcotics or NSAIDs ______________________________

____

____

____

May be photocopied for student use.

2. Narcotics or Opiates ______________________________

____

____

____

3. Narcotic Analgesic Combinations ______________________________

____

____

____

OBJECTIVE 15

Select from a list indications for use of adjuvant analgesics. Put an "X" in the blank next to an indication for use of an adjuvant analgesic.

_____ 1. Narcotics, nonnarcotics provide inadequate relief.

_____ 2. Narcotics, nonnarcotics use is limited by side effects.

_____ 3. Patient refuses narcotic.

_____ 4. Anxiety and pain are increased by sleeplessness (insomnia).

_____ 5. Pain is sharp, shooting, or piercing.

OBJECTIVE 16

List common classifications of adjuvant analgesics and one drug specific to each of the four classifications. In the space provided, list four common classifications of adjuvant analgesics and give the name of one drug specific to each of the four classifications listed.

1. ______________________________

COMMON DRUG ______________________________

2. ______________________________

COMMON DRUG ______________________________

May be photocopied for student use.

3. ____________________

COMMON DRUG ____________________

4. ____________________

COMMON DRUG ____________________

NOTE: Objectives 17 and 18 are evaluated on assignment sheets in this unit. If you have not completed these components, see your instructor.

May be photocopied for student use

WRITTEN TEST ANSWERS

PROVIDING CARE FOR THE PATIENT WITH PAIN

V

OBJECTIVE 1

Part I		Part II	
1.	g	1.	f
2.	f	2.	c
3.	h	3.	i
4.	k	4.	a
5.	b	5.	b
6.	a	6.	d
7.	l	7.	e
8.	i	8.	j

OBJECTIVE 2

1. a
2. c
3. b
4. e
5. d

OBJECTIVE 3

1. Deep pain felt at a site distant from the area of stimulation
2. Pain which occurs in deeper structures such as muscles or visceral tissues, usually described as dull and aching
3. Pain which occurs in the skin or surface structures affected by sensations, described as prickling or burning

OBJECTIVE 4

1. Behavioral responses indicating fear of pain affecting patient's response to sensation of pain
2. Behavioral responses during period that pain is actually sensed
3. Behavioral responses following the cessation of the pain sensation

OBJECTIVE 5

Answers should include six of the following:

- Phase of pain
- Intensity of pain
- Type of pain
- Effects of pain on daily living
- Degree of fatigue
- Level of anxiety or fear
- Level of stress
- Personal expectations and beliefs
- Cultural influences
- Past experiences with pain

OBJECTIVE 6

1.	S	6.	O
2.	O	7.	O
3.	S	8.	O
4.	O	9.	O
5.	O	10.	O

OBJECTIVE 7

1. weakness
   muscle atrophy
   loss of appetite
   constipation
   boredom
   sleep disorders

2. decreased self-esteem
   depression
   anxiety
   hostility
   irritability
   dependence
   loneliness
   boredom

3. altered interpersonal relationships
decreased social contact and/or isolation
inability to hold a job resulting in loss of income
inability to maintain one's role within the family

4. questioning faith
unresolved anger toward Higher Power

OBJECTIVE 8

1. N
2. N
3. N
4. N
5. I
6. I
7. N
8. I

OBJECTIVE 9

Answers will vary but should include discussion of three of the following:

- Biofeedback — a system that allows a person to control certain physical body functions by monitoring sensors placed on the body
- Distraction — focusing attention on stimuli other than pain sensation
- Hypnosis — state of alertness with intense concentration involving narrow focus and diminished peripheral awareness
- Imagery — the use of one's imagination to control pain or stress
- Relaxation — obtaining a physical state of relative freedom from both anxiety and muscle tension

OBJECTIVE 10

1. d
2. e
3. g
4. b
5. c
6. f
7. h
8. a

OBJECTIVE 11

1, 3, 5

OBJECTIVE 12

1. anti-inflammatory
   analgesic
   antipyretic

2. relieve pain (analgesic)

3. all of the above

OBJECTIVE 13

1. O
2. N
3. N
4. A
5. N
6. O
7. N
8. A
9. N
10. O

OBJECTIVE 14

Answer must include three of the following in each list:

- Aspirin
  Acetaminophen
  Ibuprofen
  Naproxen
  Indomethacin
  Trilisate

- Morphine
  Hydromorphone
  Codeine
  Methadone

- Oxycodone and acetaminophen
  Oxycodone and aspirin
  Propoxyphene and acetaminophen
  Propoxyphene, aspirin, and caffeine
  Codeine and acetaminophen
  Hydrocodone bitartrate and acetaminophen

OBJECTIVE 15

2, 4, 5

OBJECTIVE 16

Answer must include at least four of the following classifications and at least one drug for each class:

Classifications	Common Drugs
• Antidepressants	Amitriptyline HCl Doxepin HCl Imipramine HCl Desipramine HCl Fluoxetine HCl Fenoprofen
• Anticonvulsants	Phenytoin sodium Carbamazepine Valproic acid
• Antispasmodics	Baclofen Cyclobenaprine HCl Orphenadrine citrate
• Corticosteroids	Dexamethasone
• Antihistamines	Hydroxyzine HCl Diphenhydramine HCl
• Benzodiazapines	Diazepam Chlordiazapoxide Hcl Alprazolam Oxazepam Versed Temazepam
• Antipsychotics	Haloperidol

OBJECTIVE SHEET

PROVIDING CARE FOR THE PREOPERATIVE PATIENT

VI

INTRODUCTION

The main goals in surgical nursing are to promote wellness and safety for the patient and to help alleviate present and potential problems. Nursing is not only understanding the latest procedures and technology, but also providing empathy and understanding while helping patients cope with their fears and anxieties. Providing explanations and teaching on the patient's level may help decrease fear in the preoperative patient and may decrease post-operative complications. Preoperative surgical nursing provides an opportunity for the nurse to interact one-on-one with patients and can be very rewarding for both patient and nurse.

UNIT OBJECTIVE

After completing this unit, the student will be able to explain the procedures performed the evening and morning before surgery and to provide care for the preoperative patient. The student will demonstrate these competencies by completing the assignment sheet, job sheet, and written test with a minimum of 85 percent accuracy.

PREREQUISITES

Nursing Principles and Skills
Nursing Concepts
Body Structure and Function
"Applying Basic Principles of Medical-Surgical Care"
"Providing Care for the Patient with Pain"

SPECIFIC OBJECTIVES

After completing this unit, the student will be able to:

1. Match terms and definitions associated with preparation and care of the preoperative patient.

2. Select the word or phrase that completes statements concerning common preoperative nursing assessments and care.

3. Complete the word or phrase that completes statements about immediate preoperative assessments and care.

4. List common fears of the adult patient.

5. List common fears of the pediatric patient.

6. Select appropriate support techniques for patients afraid of surgery.

7. Select the word or phrase that completes statements concerning the special needs of the geriatric patient.

8. Discuss the types of consent forms.

9. Discuss reasons for informed consent.

10. Select true statements concerning the legal implications of informed consent and the use of consent forms.

11. Select factors which increase surgical risk.

12. Select true statements concerning dietary needs of preoperative patients.

13. Discuss the importance of preoperative teaching.

14. Select appropriate preoperative teaching topics for patient education.

15. Match common preoperative medications with their desired effects.

16. Select criteria for preoperative documentation.

17. Formulate a teaching plan for a preoperative patient. (Assignment Sheet)

18. Prepare a patient for surgery. (Job Sheet)

PROVIDING CARE FOR THE PREOPERATIVE PATIENT

PREPARATION

- Order materials to supplement the unit.
- Order films and videos.
- Obtain various examples of consent forms and preoperative checklists from local hospitals.
- Make arrangements for a surgical floor nurse to speak to students about common preoperative teachings and preps at the local hospital.
- Arrange for students to tour the holding area, operating room, and recovery room. Have an O.R. nurse discuss common practices in the holding area and safety measures used for all patients. Have the O.R. nurse elaborate on pediatric and geriatric concerns.
- Encourage students to role-play the parts of the preoperative nurse, patients (especially pediatric and geriatric patients), and families in order to improve communication skills and to understand the different problems and needs of the special age groups.
- Arrange for role-playing different types of operative procedures and allow students to patient-teach one another.
- In a clinical setting, arrange for students to follow a patient from the day before surgery, to the holding area, to the intraoperative area, to the recovery room, and, finally, back to the floor after the recovery room. If possible, allow students to take care of the patients the next day on the floor. This experience will increase the student nurse's understanding of the entire nursing process and will teach the importance of good patient-teaching.
- Encourage students to make drug cards on all preoperative and postoperative drugs to increase their understanding of operative medications and the side effects of each.
- Invite an attorney to speak concerning the legal implications and use of consent forms.

  NOTE: Please provide the guest speaker with the specific topic relevant to the unit of instruction ahead of time. You may want to supply the objective sheet, information sheet and any other components you want the speaker to cover. Confirm the scheduled appearance two to three days prior to the presentation.

- **HOSA** Integration
  - Have students prepare a skit on safety.
  - Have students prepare and present a three-minute speech on a specific topic of preoperative care, using the HOSA guidelines for public speaking.
  - Create a poster on safety in the preoperative area, or design a coloring book for children to help alleviate their fears. Use HOSA guidelines.

DELIVERY

- Discuss unit and specific objectives.
- Encourage students to use computer software, if computers are available.
- Devise games and/or crossword puzzles to reinforce terms.

Objective 1: Match terms and definitions associated with preparation and care of the preoperative patient.

- Discuss terms associated with preoperative nursing.
- Have students play reinforcement games and work crossword puzzles using terms.
- Show *Basic Clinical Skills: Preoperative and Postoperative Care.*

Objective 2: Select the word or phrase that completes statements concerning common preoperative nursing assessments and care.

Objective 3: Select the word or phrase that completes statements about immediate preoperative assessments and care.

- Discuss the information sheets.
- Obtain a preoperative checklist from a local hospital and review it in class.

Objective 4: List common fears of the adult patient.

Objective 5: List common fears of the pediatric patient.

- Invite a surgical nurse to speak to the class about the fears of preoperative patients (especially the pediatric and the elderly) and common interventions.

Objective 6: Select appropriate support techniques for patients afraid of surgery.

- Discuss support techniques for patients afraid of surgery.
- Have a surgical nurse speak to the class on "interventions."

Objective 7: Select the word or phrase that completes statements concerning the special needs of the geriatric patient.

- Discuss the special needs of geriatric patients.
- Allow role-playing to help students become familiar with the common needs of the geriatric patient.

Objective 8: Discuss the types of consent forms.

- Discuss the common types of consent forms.
- Bring consent forms from a local hospital to help students become familiar with the forms.

Objective 9: Discuss reasons for informed consent.

Objective 10: Select true statements concerning the legal implications of informed consent and the use of consent forms.

- Discuss the legal implications and the use of consent forms.
- Have an attorney speak to the class about common and potential legalities.

Objective 11: Select factors which increase surgical risk.

- Discuss the aspects of surgical risk.
- Have students put on skits to help visual learners understand surgical risk factors.

Objective 12: Select true statements concerning dietary needs of preoperative patients.

- Discuss the dietary needs of preoperative patients.

Objective 13: Discuss the importance of preoperative teaching.

Objective 14: Select appropriate preoperative teaching topics for patient education.

- Discuss the importance of preoperative teaching.
- Encourage role-play for students to patient-teach one another.
- Discuss the various preoperative teachings.

Objective 15: Match common preoperative medications with their desired effects.

- Discuss the common preoperative medications, their effects, and nursing implications.
- Have each student complete drug cards on selected drugs.

Objective 16: Select criteria for preoperative documentation.

- Discuss criteria for preoperative documentation.
- Schedule a nurse to speak to the class on preoperative documentation.
- Discuss the parts of the plan of care.

APPLICATION

Objective 17: Formulate a teaching plan for a preoperative patient. (Assignment Sheet)

- Have students complete Assignment Sheet.

Objective 18: Prepare a patient for surgery. (Job Sheet)

- Have students complete Job Sheet.
- Arrange students in small groups. Have them formulate a skit concerning safety in the preoperative area. Have the skits presented in front of the class.

EVALUATION

Pretest

- Give written test as pretest.
- Determine individual study requirements from pretest results.

- Counsel students individually on pretest results and study requirements.
- Modify materials in the unit or create supplementary materials for individual students as required.

Skill Test

- Evaluate students on assignment sheet and job sheet activities.
- Complete appropriate section of competency profiles.
- Reteach and reevaluate if necessary.
- Review individual and group performance in order to evaluate teaching methods. Adjust scope, sequence, or instructional approaches for additional lessons as reqiured.

Written Test

- Explain to students that they will be asked to demonstrate on the written test the actions listed in the specific objectives.
- Evaluate students on assignment sheet activities if not previously completed.
- Give the written test.

  NOTE: The written test may be given in sections if desired.

- Reteach and retest if necessary.
- Complete the appropriate section of the competency profiles.
- Review individual and group performance in order to evaluate teaching methods. Adjust scope, sequence, or instructional approaches for additional lessons as required.

SUGGESTED RESOURCES

Electronic Media

- *Basic Clinical Skills: Preoperative and Postoperative Care.* 1985. (MO53) (VHS, 36 min.)

  The above video is available from:

  Medcom/Trainex
  P. O. Box 3225
  Garden Grove, CA 92641
  (800) 877-1443

Computer Software

- *Preoperative Nursing Care.* Z11163UA Apple. Z11164UA IBM. Nasco Health Care Educational Materials, 901 Janesville Avenue, Fort Atkinson, Wisconsin 53538-0901. Phone 1-800-558-9595.
- *Nursing Care for the Surgical Patient.* Z11161UA Apple. Z11162UA IBM. Nasco Health Care Educational Materials, 901 Janesville Avenue, Fort Atkinson, Wisconsin 53538-0901. Phone 1-800-558-9595.
- *Crossword Magic.* L & L Computerware. Mindscape, Inc., 3444 Dundee Road, North Brook, Illinois.

Print Media

- Allen, Sarah, Glenda Coleman, Danene Hartman, and Mary Kellum, *Surgical Techniques, Part III.* Stillwater: Oklahoma Department of Vocational and Technical Education, Curriculum and Instructional Materials Center, 1985.
- Booth, Brian and Ashok Kumar. "Surgery for Elderly Patients: A New Specialty." *Nursing Times.* Vol. 85, No. 29, pp 26-29.
- Brunner, Lillian and Doris Suddarth. *Textbook of Medical-Surgical Nursing,* (6th ed.). Philadelphia: Lippincott Co., 1988.
- Brunner, Lillian and Doris Suddarth. *The Lippincott Manual of Nursing Practice,* (4th ed.). Philadelphia: Lippincott Co., 1981.
- Fuller, Joanna. *Surgical Technology Principles and Practices.* Philadelphia: Saunders Co., 1981.
- Kneedler, Julia and Gwen Dodge. *Perioperative Patient Care.* Cambridge, MA: Blackwell Scientific Publications, Inc., 1983.
- Meeker, Bonnie J. "What Happens Next?" *Today's OR Nurse.* Vol. 11, No. 8, pp 16-17.
- Phipps, Wilma, Juanita Long, and Nancy Woods. *Medical-Surgical Nursing.* St. Louis: C.V. Mosby Co., 1987.
- Reid, Jamie. *Practical Nursing* Curriculum. Stillwater: Oklahoma Department of Vocational and Technical Education, Curriculum and Instructional Materials Center, 1983.
- Thomas, Caly L. *Taber's Cyclopedic Medical Dictionary* (14th ed.). Philadelphia: F.A. Davis Co., 1981.
- Travelbee, Joyce. *Interpersonal Aspects of Nursing* (2nd ed.). Philadelphia: F.A. Davis Co., 1986.

UNIT REFERENCES

- Allen, Sara, Glenda Coleman, Danene Hartman, and Mary Kellum, *Surgical Techniques, Part III.* Stillwater: Oklahoma Department of Vocational and Technical Education, Curriculum and Instructional Materials Center, 1985.

- Booth, Brian and Ashok Kumar. "Surgery for Elderly Patients: A New Specialty." *Nursing Times.* Vol. 85, No 29, pp 26-29.

- Brunner, Lillian and Doris Suddarth. *Textbook of Medical-Surgical Nursing* (6th ed.). Philadelphia: J.B. Lippincott Co., 1988.

- Brunner, Lillian and Doris Suddarth. *The Lippincott Manual of Nursing Practice* (4th ed.). Philadelphia: J.B. Lippincott Co., l986.

- Kneedler, Julia and Gwen Dodge. *Preoperative Patient Care.* Cambridge, MA: Blackwell Scientific Publications, Inc., l983.

- Meeker, Bonnie J., RN, BSN. "What happens next?" *Today's O.R. Nurse.* Vol. 11, No 8, pp 16-17.

- Phipps, Wilma, Juanita Long, and Nancy Woods. *Medical-Surgical Nursing.* St. Louis: C.V. Mosby Co., l987.

- Reid, Jamie. *Practical Nursing* Curriculum. Stillwater: Oklahoma Department of Vocational-Technical Education, Curriculum and Instructional Materials Center, 1983.

- Travelbee, Joyce. *Interpersonal Aspects of Nursing* (2nd ed.). Philadelphia: F.A. Davis Co., 1986.

OBJECTIVE 1

Match terms associated with preparation and care of the preoperative patient to their correct definitions.

- **allergy** – acquired hypersensitivity to a substance
- **anesthesiologist** – a physician specializing in anesthesiology
- **autologous blood transfusion** – transfusion of blood that has been donated by patient before surgery
- **EKG (ECG) - Electrocardiogram** – a record of electrical activity of the heart, useful in diagnosis of abnormal cardiac rhythm or MI
- **fear** – fright or dread
- **geriatrics** – the branch of medicine that deals with the diseases and hygiene of old age
- **invasion** – entrance into the body
- **malnutrition** – lack of necessary or proper food substances in the body
- **minor** – person not of legal age
- **NPO** – nothing by mouth
- **pediatrics** – branch of medicine dealing with the development and care of infants and children and the treatment of their diseases
- **RBC** – red blood cell
- **UTI** – urinary tract infection; an infection in the urinary tract that may include the bladder, urethra, or kidney
- **WBC** – white blood cell

OBJECTIVE 2

Select the word or phrase that completes statements about common preoperative nursing assessments and care.

The preoperative phase begins with the patient's decision to have surgery and ends when the patient enters the operating room. In preparation for surgery, the patient is given both psychological and physical care. Physical preparation takes place the day before and the day of surgery. It consists of laboratory tests, x rays, checks for allergies, and preparation of the wound site. It is important to remember that neither physical nor psychological preparation and support can be neglected. Nurses are responsible for recording and reporting the following information.

Common Preoperative Nursing Assessments

- **Patient history**
  - The present condition of the patient, identifying such conditions as hypertension, diabetes, endocrine disorder, UTI, ulcers, or bleeding disorders.
  - Hereditary diseases such as cancer, thrombophlebitis, and hypertension.
  - Past surgical experiences such as complications, fears, and/or expectations of the patient.
  - Other pertinent information includes marital status, next of kin, age, address, occupation, and insurance information.
- **Patient's routine medications**
  - Many drugs interact with anesthetic agents and can cause serious problems.
  - When combined with muscle relaxants in surgery, some antibiotics, especially the "mycins," can potentiate the muscle relaxants and lead to respiratory paralysis.
  - Tranquilizers can potentiate the effect of narcotics and lead to hypotension. They can also result in seizure activity intraoperatively.
  - Steroid use can result in poor wound healing post-operatively. Steroids should never be discontinued abruptly, however, because sudden withdrawal can lead to circulatory collapse.
  - Aspirin and anticoagulants can prolong bleeding time after surgery.

- **Allergies**

  - In addition to allergic reactions to medications, patients can suffer allergic reactions to tape and antiseptic/antimicrobial solutions such as Hibiclens, Phisohex, and Betadine solutions.

    NOTE: Many reactions are mild, such as itching, but patients can have a serious reaction that would be life threatening. Assess allergies to seafood, which predispose patients to allergies to some of the microbial solutions.

- **Laboratory Studies**

  - Laboratory studies for the preoperative patient should be evaluated before surgery. If values are abnormal, the surgeon may wish to postpone an elective or curative surgery.

Common Laboratory Tests

- **CBC (complete blood count)** – evaluates the red blood cells that determine oxygen capacity. The number of white blood cells (WBC) is also evaluated. An increase in the number of white blood cells could indicate infection. The presence of infection could cause the surgery to be canceled.

- **UA (urinalysis)** – provides information about the patient's urological function.

- **electrolytes** – provide information about sodium, potassium, chloride, and CO^2 levels. If electrolytes are abnormal, the surgery might be rescheduled.

- **blood chemistry** – provides information about a variety of components within the blood. Some examples of components are creatinine, BUN, and calcium.

- **platelet count and blood clotting time** – measures the ability of the blood to clot. The clotting time represents the length of time it takes the blood to clot. This test is normally completed in the preoperative area to help determine the potential for excessive bleeding during and after surgery.

- **blood type and cross** (if ordered by surgeon) – determine if the patient's blood is compatible with the blood available. If patients require blood during surgery and insufficient compatible blood is on hand, the patient can suffer serious complications. Minor surgeries may be performed without type and cross; however, hospital policy and the physician's preference control the matter of typing and crossing blood.

other – specialized blood and urine tests may be ordered, depending upon the surgery and the surgeon.

Other Preoperative Procedures

- **chest x ray** – may or may not be mandatory; the hospital and surgeon determine the policy.

- **EKG** – normally ordered for patients over 40 years of age.

Preoperative Care

Preoperative care ordered by the physician can include the following preparations:

- **bowel prep** – a cleansing enema or bowel prep may be given the night before surgery. Preoperative enemas are commonly ordered before gastrointestinal, pelvic, or perianal surgeries. These measures prepare the bowel for better visualization and prevent injury to the colon. Oral medications are often administered to cleanse the bowels.

- **douche** – a douche is usually ordered for OB-GYN procedures to cleanse and provide an area as free of bacteria as possible.

- **skin prep** – skin preps decrease microorganisms at the operative site. The skin can never be completely rid of microorganisms, but the number can be considerably reduced by thorough cleansing. Skin preps are becoming less and less common. Currently, most skin preps are associated with orthopedic procedures, but the order for a skin prep depends on the surgeon and on hospital policy.

- **shave prep** – shave preps decrease the number of microorganisms at the operative site.

  NOTE: Although not all hospitals are performing the shave prep, of those that do, the majority are performing the shave prep in the intraoperative area. A few, however, still perform the shave prep in the holding area. Some orthopedic cases are shaved the night before surgery. Recent studies indicate that shave preps completed close to the time of surgery result in a lower incidence of infection.

- **bedtime sedative** – the bedtime sedative may be prescribed by the surgeon to help the patient rest the night before surgery.

- **bath or shower** – this preparation for surgery is commonly done the evening before or the morning of surgery with an antimicrobial solution.

- **NPO** – surgery patients normally receive nothing by mouth (NPO) after midnight.

OBJECTIVE 3 **Select the word or phrase that completes statements about immediate preoperative assessments and care.**

The day of surgery, the patient's emotional and physical status should be assessed and documented. Common assessments and care given by the nurse include the following:

- **vital signs** – temperature, pulse, respirations, and blood pressure are very important immediately before surgery to provide baseline data.

- **shower or bath** – if no shower or bath is taken the night before, the patient should shower or bathe the morning of the surgery if not contraindicated.

- **gown** – a clean gown should be placed on the patient and his or her underwear removed. This procedure is governed by the particular hospital's policy.

- **dentures** – dentures should be removed. Some anesthesiologists prefer that dentures be left in until arrival in O.R. Dentures create a tighter seal when ventilating before intubation. If left in, a denture cup should be sent with the patient. The cup should be labeled so that the dentures are not lost. Be sure to make the anesthesiologist aware that the patient wears dentures. Some patients are embarrassed to remove their dentures, so they are allowed to wear them until they are removed in O.R. This procedure will depend on hospital policy.

- **contact lenses/glasses** – contact lenses or glasses should be removed and stored in a safe place. Be sure to store contacts in the specified solution. Explain to the patient that, during surgery, an ointment is placed in the eyes to prevent drying of the corneal area that would irritate contact lenses. Further, when being put to sleep, the mask could place pressure on the eyes and cause contacts to damage the eyes.

- **jewelry** – all jewelry should be removed and placed in a hospital safe or sent home with family members. Be sure to document if sent home with the family. Many patients will refuse to remove wedding rings. If this occurs, place a piece of tape securely around the patient's finger to prevent the loss of the ring.

- **accessories** – all accessories, such as a wig or hairpins, should be removed because they could become dislodged and injure the scalp.

- **makeup and nail polish** – makeup and nail polish should be removed from the patient. Explain that during a surgery a special ointment is placed in the eyes to prevent corneal abrasions. The ointment could mix with makeup and cause eye irritation. Many hospitals are allowing patients with false fingernails to remove only one so that there is visualization of the nail beds to check capillary refill and note circulatory status.

- **prosthesis** – normally, prostheses such as hearing aids should be removed. Many hospitals, however, are allowing patients to leave hearing aids in place to aid in better communication.

- **antiembolism stockings** – these stockings are placed on high-risk individuals before going to surgery per doctor's order.

- **bladder** – all patients, except those with catheters, should be instructed to void immediately before going to O.R. An empty bladder allows better visualization of the abdominal cavity and decreases chances of inadvertent injury to the bladder. Always avoid catheterization of patients, if possible, because of increased risk of post-operative UTI. If a catheter is ordered, it is inserted either after the patient is sedated in the holding area or intraoperatively. Document on the checklist that the patient did void and the time.

- **ID band** – the patient should wear an ID band, allergy band, and/or a blood band if indicated. Check that it is correct.

- **medication** – preoperative medication is administered to patients before surgery to help decrease anxiety and to provide a smoother, easier induction of the patient. It also minimizes some of the side effects of anesthesia and, in many cases, reduces the amount of anesthesia required intraoperatively. Preoperative medications can be administered on call, meaning that the anesthesiologist will have someone from O.R. call to give the exact time to administer the drug. Many hospitals are administering IV medication in the holding area immediately before taking the patient to O.R.

Medications are ordered by the surgeon or anesthesiologist after the patient is evaluated. The type and route of medication will depend upon the anesthesiologist and hospital policy. When preoperative medications are ordered on call, at a specific time, the nurse should try to administer the medications at the exact time. Administering preoperative medications too early results in the desired effect of the medications occurring prematurely. If the preoperative medications are given too late, the medications will not have produced the desired effect in the patient causing an increased danger of intraoperative respiratory depression. (Preoperative medications and their administration will be discussed later in this unit.)

After administering preoperative medications, always

- Pull the side rails up for patient safety
- Place the bed in lowest position
- Instruct patients not to get up alone
- Instruct patients not to smoke after preop medication
- Instruct patient on call light use and place it near the patient
- Document

NOTE: An informal survey indicates that many hospitals administer IM medications on call, while just as many administer IV medications in the holding area. Some hospitals avoid administering a preoperative medication unless the patient is extremely nervous. Be familiar with the policy of your facility.

OBJECTIVE 4 **List common fears of the adult patient.**

Fear is expressed in different ways by different people. Many patients express fear indirectly by asking a lot of questions and repeating them frequently. Some may express fear by withdrawing and avoiding communication, while others may directly express their anxiety or fear.

Common Fears of Adults

- Death
- Pain
- Anesthesia
- Cancer
- Exposure (physically and mentally)
- Separation
- Permanent disability
- Disfigurement
- Financial problems
- Employment obligations

OBJECTIVE 5 **List common fears of the pediatric patient.**

Children have many of the same fears as adults. In addition, they may experience some or all of the following fears:

- **being away from family** – children may feel they are being punished for being bad.

- **anesthesia** – children do not understand unconsciousness and often equate anesthetic sleep with death. These feelings are increased when they are told that they will be put to sleep. Children may associate being "put to sleep" with being told of a dead relative who "is just sleeping" or remember a pet that has been put to sleep.

- **mask** – children equate a mask with the possibility of smothering or with difficulty breathing.

- Words such as "cut," "knife," or "bloody."

OBJECTIVE 6

Select appropriate support techniques for patients afraid of surgery.

Many patient fears can be avoided by providing timely patient-teaching and by using one of the appropriate support techniques listed below.

- **Allow patients time to verbalize their fears.** Be a good listener.

- **Provide only the amount of information the patient can handle.** This decision will be based on the background, interest, and stress level of the patient. Too much information can increase anxiety.

- **Provide simple explanations.**

- **Meet spiritual needs.** Meeting spiritual needs is extremely important. Different cultures and religions will require special religious activities. This support is especially important for patients who fear death.

- **Reassure patients that there are medications available to relieve pain.**

- **Never lie to patients.** Never tell patients that they will not experience pain. Violating this guideline destroys any confidence patients have in the nursing staff.

- **Reassure patients that the anesthesiologist will monitor them continuously.** Many patients feel that they will wake up before the procedure is finished. Encourage anesthesiologists to visit with patients.

- **Encourage the family to be supportive.** Be empathetic of the patient's fear of rejection after surgery.

- **Explain that there is no need to fear telling secrets.** Most patients can only utter a few words after induction is initiated.

- **Decrease fear of physical exposure.** Any invasive procedure such as catheterization should be performed after the patient is asleep, if possible.

  REMEMBER: Respect the patient's privacy at all times!

- **Encourage patients to develop a good rapport with their surgeons.** Patients who have confidence in their surgeons have less fear of the unknown.

- **Allow parents to stay with their children in the holding area.** Try to establish a trusting relationship with children and their parents. Children "pick up" on the fears and insecurities of the nurse. Allow children to take favorite teddy bears or dolls to O.R. with them. If the surgery is elective and time permits, allow children and parents to tour the holding, intraoperative, and recovery areas the day before surgery. Explain the bright lights, the cold rooms, the reasons that everyone will be wearing a mask, and the length of time that will be spent in recovery. Explain that there will be one nurse taking special care of them. Explain about the blood pressure monitor and the oxygen face tents, and allow children to see and touch these.

- **Encourage children to hold masks.** Explain what will be expected of them intraoperatively. Allow children to ask questions. Try to alleviate their fears of going to sleep. Tell children that after they wake up, they will be going back to their rooms where Mom and Dad can stay with them. One anesthesiologist pretends to put the child's teddy bear to sleep and explains to the bear how to breathe and what he will feel.

  EXAMPLE: "Breathe in this mask like you were a pilot in an airplane. This mask may smell like bananas or perfume (depending on the type of gas used), and you will start to feel sleepy. After a nap, you will wake up in the recovery room. When you're completely awake, we will take you to a room where your Mommy and Daddy can stay with you."

The younger children always get a laugh from the idea of their bears getting sleepy with the mask on. The children seem to cooperate better because they know what to expect.

It is important to remember that all patients do not verbalize their fears openly. Many patients continually wring their hands, are very nervous, cry continually or intermittently, are angry, continually talk, or say nothing. Some patients may even appear well-adjusted but are unable to cope effectively. It is important for patients to avoid repressing their feelings.

OBJECTIVE 7

Select the word or phrase that completes statements concerning the special needs of the geriatric patient.

Elderly patients are considered a poorer surgical risk than younger patients. Because of this consideration, they have special needs. Some special needs to keep in mind while caring for the geriatric patient are discussed below.

- **Use care in positioning to avoid skin abrasions.** The aging of the integumentary system results in a decrease in skin turgor, skin secretions, and elasticity, factors which lead to poor wound healing.

- **Monitor body temperature.** Decreased body fat in some elderly patients makes them sensitive to temperature changes and can result in post-op hypothermia. It is a good idea to add extra blankets for the geriatric patient preoperatively.

- **Monitor fluid intake and output carefully.** Geriatric patients have decreased kidney output because vascular changes reduce blood flow to the kidneys. Because of the delay in excretion time, there is a potential for prolonged anesthesia and electrolyte imbalance.

- **Assess for nutritional status.** Malnutrition is common in geriatric patients. Malnutrition will delay wound healing postoperatively. Because older patients experience a decrease in gastric secretions and a decrease in the sensitivity of their taste buds, inadequate nutritional and fluid intake is common.

- **Assess for deficits in communication.** Elderly patients may experience a decrease in sensory perception, resulting in hearing loss and visual impairment.

- **Assess for potential for blood clots and increased chance of infection.** Because cardiovascular systems have reduced cardiac volume, heart valves thicken, blood pressure increases, peripheral varicosities occur, and circulation decreases.

- **Monitor the patient to prevent falls.** Preoperative medications can create a potential for falls, especially in the postoperative area.

- **Monitor the patient for pneumonia and atelectasis.** Respiratory problems are common in the elderly because of a decrease in vital capacity and an increase in residual volume.

When working with geriatric patients, remember that they

- Have slower metabolism; therefore, medications are excreted more slowly
- Are more inclined to thrombus formation and may need antiembolism stockings
- Are more susceptible to infection; aseptic technique is essential
- Need a safe environment; keep the side rails of the bed up at all times

OBJECTIVE 8 **Discuss the types of consent forms.**

NOTE: Student nurses are **NOT** permitted to witness and sign consent forms.

- **operative consent forms** – informed consent is the right of the patient to know the risks of surgical procedures before they are performed. To document that the patient has received this information, the patient must sign a form with witnesses present. Witnessing the signing of the form is normally a responsibility of the nurse. Operative consent forms are easy to understand and are written in short, simple sentences; however, the physician has the responsibility to explain the risks, alternatives to surgery, and prognosis without surgery.
- **blood consent forms** – this form is used to document that the patient consents to receive a blood transfusion, if necessary. Many religions forbid blood transfusions, and the patient always has the right to refuse such treatments.

  NOTE: Many people are afraid of contracting AIDS from a blood transfusion. The nurse should explain that all blood is tested extensively for the AIDS virus; however, testing is not 100 percent accurate. Research on AIDS is continuous, and facts change rapidly. Many may choose an autologous blood transfusion.
- **invasive procedure consent form** – this consent form is required for any invasive procedure such as a colonoscopy or bronchoscopy.
- **specialized sterilization consent form** – before performing a vasectomy or tubal ligation, the spouse is often asked to sign as well as the patient.

OBJECTIVE 9 **Discuss the reasons for informed consent.**

Informed consent is important because it

- Indicates the patient received information about procedure and risks
- Indicates that the patient's decision was made without pressure
- Protects the patient against unauthorized procedures
- Protects the surgeon and hospital against legal action by the patient who claims an unauthorized procedure was performed

NOTE: Many hospitals require that consent forms be signed within 24 hours before surgery. Some institutional policies indicate, however, that, as long as the patient's mental condition has not changed, the forms are valid for one month or longer. Be familiar with the policy of your facility.

OBJECTIVE 10 **Select true statements concerning the legal implications of informed consent and the use of consent forms.**

- If an adult is unable to give informed consent, that consent must be obtained from the next of kin, usually the spouse, an adult child, parent, or sibling.
- If the patient is mentally incompetent, the parent or legal guardian must sign.
- If the patient is unable to write, he/she must make an X before two witnesses.
- For minor children, consent is obtained from the parent or legal guardian.

NOTE: Parents can sign forms giving a designated person permission to obtain emergency care for a child in the parents' absence. The form must be notarized.

- An emancipated minor, a married person, and a self-supporting individual can sign their own permits.
- If a married minor is unable to sign the consent form, permission may be obtained from the husband or wife.
- Permission can be obtained over the telephone in an emergency situation. Two witnesses must verify that permission was granted.

- In life-threatening situations, surgeons may operate on patients who are unable to communicate without the permission of the patient or family; however, they must make every effort to notify the next of kin. A court order may necessary.

Always be sure that a consent form is signed before the preoperative medication is administered, or the consent will not be considered binding.

OBJECTIVE 11

Select factors which increase surgical risk.

Some of the factors that increase patients' surgical risks over what is normally expected for healthy people are

- Obesity
- Malnutrition
- Smoking
- Age
- Presence of diseases
- History of alcoholism
- Upper respiratory infections or diseases
- Prior pharmacotherapy

OBJECTIVE 12

Select true statements concerning dietary needs of preoperative patients.

Good nutrition is the basis for the proper functioning of the body. People who eat a balanced diet including sufficient nutrients are better prepared for surgery than those who have experienced poor nutrition. Many patients, however, require an emergency surgery, which prevents them from preparing nutritionally. If surgery is elective or planned, the physician may encourage the patient to increase consumption of protein and vitamins A and C in order to promote healing postoperatively. Normally, patients should increase their fluid intake to prevent dehydration.

- Surgery patients are given nothing by mouth (NPO) before surgery in order to avoid the possibility of aspiration during or immediately after surgery. If it is discovered that a patient has consumed anything by mouth, the surgery may have to be rescheduled.

  NOTE: Some physicians may order a clear liquid diet the day of surgery for a patient having a spinal anesthesia; however, many anesthesiologists prefer that patients be NPO in case the procedure changes and the patient has to be given a general anesthetic.

- If the patient is dehydrated, parenteral fluids will normally be initiated before surgery.

- Patients scheduled for bowel surgery will probably be placed on a low-residue diet several days before surgery.

OBJECTIVE 13

Discuss the importance of preoperative teaching.

Appropriate and timely preoperative teaching can positively influence the outcome of surgery. Explaining the preoperative activities such as shave preps, preoperative tests, and expectations of surgery will make it easier to obtain the patient's cooperation. Waiting until after the patient's surgery to start teaching decreases the effectiveness of the instruction.

The amount and degree of preoperative teaching will depend upon factors such as the level of the patient's understanding, the patient's physical and emotional condition, the patient's desire to understand and cooperate, and the amount of time the nurse has to spend with the patient. If the patient is encouraged to participate, the teaching will be effective because the patient will feel more "in control."

To provide quality patient-teaching, the nurse should first determine how much the patient knows. This level can be determined by asking "open-ended" questions, by giving the patient time to respond, and, most importantly, by being a good listener. Once the nurse knows the level of understanding of the patient, the teaching can begin.

Remember to

- Begin at the patient's level of understanding
- Keep the information simple
- Demonstrate techniques
- Provide time for questions

- Involve family members

Patients who receive preoperative teaching should

- Experience a smoother recovery
- Need less pain medication
- Be more cooperative
- Recover more rapidly
- Be discharged sooner from the hospital

OBJECTIVE 14 **Select appropriate preoperative teaching topics for patient education.**

- **deep breathing and coughing** – patients should be taught how to breathe deeply. By filling their lungs completely and exhaling fully, patients remove the anesthesia from their bodies faster. The deep breathing may stimulate a cough reflex. Patients should also be taught to splint their incision areas with a pillow, towel, or their hands in order to help decrease pain when coughing. Explain to patients that these exercises are to mobilize secretions and prevent pneumonia and atelectasis.

- **leg exercises** – exercises are necessary to prevent venous stasis which can develop into thrombophlebitis or blood clots. Leg exercises should consist of bending the knee and raising the foot, holding a few seconds, then extending the leg, and lowering it. These maneuvers should be repeated about five times each leg. After exercising the legs, move the feet in circles. These exercises will increase circulation and muscle tone.

- **active body movements** – body movements increase circulation, prevent venous stasis, and contribute to respiratory exchange. Patients should be encouraged to turn every two hours and lie in a lateral position with knees flexed. Always maintain the patient in the correct alignment. When assisting patients to sit on the side of the bed, encourage them to move to the head of the bed, then raise the bed to the Fowler's position. They can then swing their hips around, drop their feet off the side of the bed, and push up to a sitting position with the hand closest to the edge of the bed. Remind patients to support their incisions with the other hand when pushing up to sit.

- **urinal** – male patients may need instruction in the use of the urinal after surgery.

- **tubes, drains, catheters, or IVs** – patients need to know the purpose of any drainage tubes, their care, and the expected length of time the tubes will remain in place. Reasons for intravenous fluids and the length of time IVs may be left in place should be explained also.

- **medication** – patients need to know that they will be receiving pain medication upon request to keep them comfortable. Caution patients about side rails and smoking in bed after pain medication, and explain the call light system. If receiving pain medication with a PCA pump postoperatively, explain the operating instructions.

- **relaxation skills** – techniques for reducing tension are helpful postoperatively. Imagery, distraction techniques, and optimistic self-recitation need full explanations.

- **dietary needs** – patients need help understanding dietary orders after surgery. If the surgeon orders NPO, explain that some surgeons start patients out on a clear liquid diet, advance them to a full liquid diet and, finally, order a regular diet or a special diet such as low residue, low calorie, high fiber, ADA, or bland.

OBJECTIVE 15

Match common preoperative medications with their desired effects.

Use the chart on the next page to become familiar with common preoperative medications and their effects.

COMMON PREOPERATIVE MEDICATIONS

GENERIC NAME	TRADE NAME	DOSE	DESIRED EFFECTS	UNDESIRED EFFECTS
Sedative-Hypnotic				
Pentobarbital sodium	Nembutal Sodium	50-200 mg	Reduces anxiety; promotes relaxation and sleep	Excitement/confusion in elderly or those with severe pain
Necrobarbital sodium	Seconal Sodium	50-200 mg	Same as above	Same as above
Flurazepam hydorcholride	Dalmane	50 mg	Promotes relaxation	
Chloral hydrate		0.5-1.0 g	Same as above	
Narcotics				
Morphine sulfate		5-15 mg	Reduces anxiety; promotes relaxation; decreases preoperative pain; decreases amount of anesthetic needed	Depresses respiration, circulation, and gastric motility; may cause nausea and vomiting
Meperidine hydrocholoride	Demerol	50-100 mg	Same as above	Same as above
Tranquilizers				
Promethazine hydrochloride	Phenergen	12.5-25 mg (children) 25-50 mg (adults)	Reduces anxiety; antiemetic	Postoperative hypotension
Chlorpromazine	Thorazine	12.5-25 mg	Same as above	Same as above
Neuroleptanalgesic Agent				
Fentanyl and droperidol	Innovar	0.5-2.0 ml	General quiescence; state of indifference; decreased motor activity; analgesia; antiemetic	Respiratory depression; muscle rigidity; hypotension
Vagolytic Agents				
Atropine sulfate		0.4-0.6 mg	Decreased secretions; prevention of laryngospasms	Excessive dryness of mouth; tachycardia
Scopolamine hydrobromide	Hyoscine	0.3-0.6 mg	Decreased secretions; amnesia; state of indifference; sedation	Excessive dryness of mouth
General Anesthesia				
Short-acting versed	Midazolm Hel	.07-.08 mg/kg	Preop sedation causing amnesia	Decreased BP, PVC's, N/V, increased salivation

OBJECTIVE 16

Select criteria for preoperative documentation.

When documenting preoperative care, check the following criteria:

- NPO status of patient
- Vital signs of the patient
- Preoperative medication administered
- Safety status of patient
- Patient-teaching performed and the patient's response to teaching
- Preoperative checklist completed and on front of patient's chart
- Identification and allergy bracelets in place
- Operative permit signed
- History and physical reports on chart
- Laboratory and other test results on chart
- Allergies noted and charted
- Removal of contact lenses, glasses, hairpins, make-up, nail polish, etc.
- Removal of dentures
- Jewelry removed and placed in safe or sent with family
- O.R. cap placed
- Clean gown placed
- Voided, catherized, Foley inserted Time ______ Amount ____

ASSIGNMENT SHEET

Development of:
READING SKILLS
WRITING SKILLS
SCIENCE SKILLS
CREATIVE THINKING/PROBLEM SOLVING SKILLS
EMPLOYABILITY SKILLS
SOCIAL STUDIES SKILLS

- Introduce the assignment to the students by discussing why reading skills, writing skills, science skills, creative thinking/problem solving skills, employability skills, and social studies skills are important.

- Discuss with them the following skills which are relevant to this task:

  READING

  - Gaining factual information
  - Interpreting forms and records

  WRITING

  - Completing forms and records

  SCIENCE

  - Investigating health issues

  CREATIVE THINKING/PROBLEM SOLVING

  - Collecting/recording information
  - Identifying critical elements/issues
  - Analyzing/synthesizing information
  - Creating a finished product
  - Developing an action plan

  EMPLOYABILITY

  - Mastering a specific job task/procedure

SOCIAL STUDIES

- Investigating and applying principles of psychology

- If students have difficulty gaining factual information:
  - Suggest they read carefully, noting key words and ideas.
  - Instruct them to write questions about the topic before they start reading and to look for the answers as they read.
  - Suggest that they take notes and arrange the information in a pattern that is meaningful for them.
- If students have difficulty interpreting forms and records:
  - Examine the structure of the forms being used.
  - Review the terminology on the form.
- If students have difficulty completing forms and records:
  - Examine the structure of the forms being used.
  - Stress the importance of accurate, legible records.
- If students have difficulty investigating health issues, refer them to general texts, magazines, videotapes in the area they are teaching, and to individuals who can act as resources.
- If students have difficulty collecting/recording information:
  - Allow them to role-play an information-gathering scenario with other students.
  - Stress the importance of obtaining accurate information.
  - Discuss the consequences of insufficient or inaccurate information in their teaching plans.
  - Discuss the consequences of charting or collecting information inaccurately.
- If students have difficulty identifying critical elements/issues:
  - Instruct them to read, listen, observe, or examine their sources carefully, noting key words and ideas.
  - Instruct them to listen or watch carefully for clue words that suggest a critical issue is being presented.

EXAMPLE: Patient: "They should have told me before that the phone should be turned off at 9:00. I don't think they're being fair about that." Nurse: "There's a pay phone in the waiting room. You can call out or arrange for your family to call you there at a certain time."

  - Suggest that they list the questions they hope to answer.

  - Review listening and nonverbal communication skills.

- If students have difficulty analyzing/synthesizing information:

  - Remind them that to analyze they must break the information down into all its components in order to understand it.

  - Remind them that to synthesize information they should put all the components together in a way that makes the information usable.

- If students have difficulty drawing conclusions:

  - Direct them to identify the need or the criteria for the end product and to examine the collected data looking for patterns, the range of ideas expressed, and the language used.

  - Encourage them to develop a system or way of checking their conclusions.

    EXAMPLE:
    Conclusion: Mrs. Jones will be more ready to learn if I schedule the teaching after her favorite programs.

    Signs that verify my conclusion: She will be more willing to listen to me now than she was at 10 a.m. Look for more smiling, less complaining. See if talking about what happened on today's episode helps make her more receptive.

- If students have difficulty creating a finished product:

  - Review the information.

  - Instruct them to examine the goals of the assignment.

  - Instruct them to work one step at a time until the project is finished.

  - Suggest that they write a flow chart or schedule for attaining each goal.

  - Review the analysis and synthesis of information to determine whether the conclusions are correct.

- If students have difficulty developing an action plan:
  - Instruct them to list their goals.
  - Discuss the steps necessary to attain the goals.
  - Instruct them to arrange the steps in a logical order.

- If students have difficulty mastering a specific job task/procedure:
  - Emphasize the fact that practice makes a person proficient and proficiency makes a person confident.
  - Suggest that they study each component of the procedure to determine which area is causing difficulty.
  - Review the entire procedure.
  - Team students having difficulty with proficient students or professionals to practice the job task/procedure.

- If students have difficulty investigating and applying principles of psychology:
  - Review pertinent theories of teaching and learning.
  - Refer students to easily available resources for additional research and encourage them to look up popular magazine articles on the problem and any related areas.
  - Suggest that they role-play people with different needs or a nurse interacting with patients with different need levels. Have "patient" students express fear in different ways so that "nurse" students can practice a variety of approaches and types of reassurance.
  - Encourage them to listen to the language used and to observe body language and nonverbal behavior to help understand the patient.

JOB SHEET

Development of:
READING SKILLS
WRITING SKILLS
MATHEMATICS SKILLS
SCIENCE SKILLS
ORAL COMMUNICATION SKILLS
INTERPERSONAL OR RELATING SKILLS
EMPLOYABILITY SKILLS

- Introduce the assignment to the students by discussing why reading skills, writing skills, mathematics skills, science skills, oral communication skills, interpersonal or relating skills, employability skills, and social studies skills are important.
- Discuss with them the following skills which are relevant to this task:

  READING

  - Gaining factual information
  - Interpreting forms and records

  WRITING

  - Completing forms and records

  MATHEMATICS

  - Using English and metric measures
  - Making measurements

  SCIENCE

  - Using scientific instruments (sphygmomanometer)
  - Investigating/applying principles of anatomy/physiology

- For additional suggestions on teaching basic skills, refer to suggestions for Assignment Sheet.

  ORAL COMMUNICATION

  - Communicating with clients/customers

  INTERPERSONAL OR RELATING

  - Interacting with clients/customers/patients

  EMPLOYABILITY

  - Mastering a specific job task/procedure
  - Practicing good work habits/attitudes
  - Dealing effectively with customers/clients

- If students have difficulty using English and metric measures or making measurements:
  - Review the units of measure being used.
  - Demonstrate the correct way to measure using the specific measuring instrument.
  - Have students identify precisely what is being measured and why.
  - Allow students to watch more proficient students performing the measurement.

- If students have difficulty using scientific instruments (sphygmomanometer):
  - Review the correct procedure for of each use.
  - Team students having difficulty with students proficient with the instrument and allow students to observe the procedure repeatedly, then practice using the instrument before they begin job sheet.

- If students have difficulty investigating/applying principles of anatomy/physiology:
  - Review assessment procedures.
  - Refer them to *Nursing Principles and Skills* and/or *Body Structure and Function* as appropriate.

- If students have difficulty communicating with clients/customers:
  - Suggest that they role-play patient communication scenes, focusing on the patient's expectations and perspective.

  - Discuss the importance of courtesy and how it affects patient/nurse communication.

- If students have difficulty interacting with clients/customers/patients:

  - Have them identify their responsibilities as an employee and discuss how their actions meet those responsibilities.

  - Suggest phrases they can use regularly and have them practice the phrases, noting volume, grammar, and intonation.

  - Discuss the importance of body language and posture.

  - Suggest to students that, when dealing with a patient, they concentrate on the patient rather than working on other tasks.

- If students have difficulty mastering a specific job task/procedure:

  - Emphasize the fact that practice makes a person proficient and proficiency makes a person confident.

  - Suggest that they study each component of the procedure to determine which area is causing difficulty.

  - Review the entire procedure.

  - Team students having difficulty with proficient students or professionals to practice the job task/procedure.

- If students have difficulty dealing effectively with customers/clients:

  - Discuss the importance of effective communication skills.

  - Review active listening skills and other communication techniques.

  - Discuss patient relations policies.

- For additional suggestions on teaching basic skills, suggestions for Assignment Sheet.

ASSIGNMENT SHEET

PROVIDING CARE FOR THE PREOPERATIVE PATIENT

VI

Name ______________________________ Score ___________

OBJECTIVE 17

Formulate a teaching plan for a preoperative patient.

INTRODUCTION

Appropriate patient teaching can have a positive effect on the outcome of surgery. Explaining preoperative procedures and what to expect after surgery can decrease patients' anxieties by helping them feel more "in control." Formulating an appropriate teaching plan begins with evaluating the patient's level of understanding and then beginning at that level. This assignment sheet will help you plan effective patient teaching by guiding you through positive patient evaluation techniques.

DIRECTIONS

Reading Comprehension Skills
- Gain factual information

Functional Reading Skills
- Interpret forms and records

Functional Writing Skills
- Complete forms and records

Life Science Skills
- Investigate health issues (medical, ergonomic, nutrition, mental health)

Use the following scenario to formulate a teaching plan for a preoperative patient. Consider all post-op equipment that will be used and your expectations for this patient. Remember to include the emotional and spiritual care for your patient as well as physical care. Use the Preoperative Checklist and the Patient Teaching Guide provided on the next five pages.

Scenario

Mrs. Jones is a 73-year-old, white female admitted to the surgical floor for a total thyroidectomy tomorrow. She had a painless enlargement in her neck and went to her doctor with complaints that it was becoming difficult to swallow. He consulted an internal medicine specialist. After x rays and a needle biopsy, it was determined that Mrs. Jones should have a total thyroidectomy. She has never had surgery before and has never been in the hospital. She has two sons who live overseas. Her husband is in bad health, has poor eyesight, and cannot drive at night. Mrs. Jones is fearful that her thyroid is malignant, that she will not survive the surgery, and that she will never see her two sons again. She has heard stories from her friends at church about the thyroid surgery and how the scar is usually one inch in diameter and extends from one ear to the other. Her lab work indicates WBC is 12,000 and her Hgb is 8.0. All other lab work is normal. Her chest x ray is normal, considering that she smokes two packages of cigarettes per day. Her EKG is normal for her age.

BEST COPY AVAILABLE

Cognitive Activities Skills

- Collect/record information
- Identify critical elements/issues
- Analyze/synthesize information
- Draw conclusions
- Create a finished product (written, oral, practical)
- Develop an action plan

Job Acquisition/ Development Skills

- Master specific job task/procedure

Social Studies Application Skills

- Investigate/apply principles of psychology

PREOPERATIVE CHECKLIST

DATE: ____________________

PATIENT: ____________________

PROCEDURE: ____________________

____

____

[redacted]

Floor OR (Each item is to be initialed and checked in the proper column.)

___ ___ 1. Identification and allergy bracelets on (please circle)
___ ___ 2. Operative permit signed
___ ___ 3. History and physical on chart (dictated)
___ ___ 4. Laboratory reports on chart____
___ ___ 5. Allergies and other special precautions taped to front of chart
___ ___ 6. Voided, catheterized, Foley inserted (please circle)
Time____Amount ___
___ ___ 7. T.P.R. on chart
___ ___ 8. B/P on chart
___ ___ 9. Contact lens, glasses, hairpins, make-up, nail polish, wigs removed
___ ___ 10. Dentures, dental bridges, partial plates removed
___ ___ 11. Jewelry checked
___with family
___taped on
___locked up as follows:________________
____
___ ___ 12. OR cap and gown on
___ ___ 13. Charge slips and addressograph plate on chart
___ ___ 14. Premedication of____________________
given at ___Given by____________________
___ ___ 15. Operative area prepped

[redacted]

Signed ____________________ **Floor Nurse**

Signed ____________________ **O.R. Nurse**

BEST COPY AVAILABLE

PATIENT-TEACHING GUIDE

ASSESSMENT/ANALYSIS

- Assess current knowledge level and understanding of patient.
- Assess readiness of patient to learn.
- Assess the best time to teach.
- Assess other health problems of the patient.
- Assess the best way for patient to learn.

  NOTE: Some patients learn better seeing a chart; some learn by discussing; and others learn by hands-on demonstration.

- Assess the support systems available to the patient.
- Assess the expectations of the patient and family.

PLANNING

- Determine short- and long-term nursing.
- Gather appropriate teaching aids and equipment.
- Develop a written teaching plan for the patient.
- Involve other health team members who will be involved in the patient's care.
- Anticipate additional medical care that may be needed after hospitalization.

IMPLEMENTATION

- Be knowledgeable about information to be presented to the patient.
- Begin on the patient's level of understanding.
- If possible, use the exact equipment that the patient will be using postoperatively.
- Encourage the involvement of the patient.
- Allow verbalization from the patient and family.
- Encourage the patient to express fears.

Examples of patient-teaching include the following:

- **Explanation of preoperative lab tests, x rays, and other tests**
- **Explanation of skin prep, if indicated**
- **Discussion of post-op exercises, especially deep breathing when a history of smoking is indicated**
- **Discussion of the importance of turning in bed after surgery and leg exercises**
- **Discussion of the importance of the dietary regimen, if applicable**
- **Explanation of the need to keep the head of the bed elevated**
- **Explanation of humidified oxygen after surgery**
- **Explanation of drain tubes, IVs, catheters, vital signs, etc**
- **Discussion of patient involvement in a support group after surgery**

EVALUATION

- Is the patient involved in the teaching process?
- Is the patient asking questions?
- Is the family involved?
- Are post-op expectations reasonable?
- Are referrals such as support group and clergyman necessary?
- Does the patient appear anxious?
- Does the patient verbalize an understanding of instructions?
- Is additional teaching needed?
- Were goals met?

BEST COPY AVAILABLE

LESSON PLAN FOR PATIENT-TEACHING GUIDE

1. What will you do to prepare the patient for the teaching session?

2. What materials, supplies, or equipment will you need?

3. Outline the teaching plan below.

   Preventive measures:

   Dietary considerations:

4. Other comments or considerations for this patient:

____

____

____

____

____

____

____

____

____

____

____

____

BEST COPY AVAILABLE

PROVIDING CARE FOR THE PREOPERATIVE PATIENT

ASSIGNMENT SHEET

Student answers will vary.

JOB SHEET

PROVIDING CARE FOR THE PREOPERATIVE PATIENT

VI

Name ______________________________ Score _______

OBJECTIVE 18

Prepare a patient for surgery.

INTRODUCTION

Use the procedure below to prepare a patient for surgery. Many items may not be applicable to your particular patient; however, most surgical checklists will be similar.

EQUIPMENT AND SUPPLIES

- Thermometer
- Watch with a second hand
- Blood pressure cuff
- Sphygmomanometer
- Black ink pen
- Denture cup
- Simulated preoperative chart including lab tests, x rays, and other pertinent test results
- Bedpan
- Urinal (if male patient)
- Syringe to simulate a preoperative medication
- Pre-op checklist

PROCEDURE

Reading Comprehension Skills
- Gain factual information

Functional Reading Skills
- Interpret forms and

Functional Writing Skills
- Complete forms and records

Assessment and Analysis	Yes	No
1. Check vital signs.	_____	_____
2. Identify patient.	_____	_____
3. Review the chart for history, lab test results, and x-ray results.	_____	_____
4. Check for allergies and note allergies in big red letters.	_____	_____

Planning

Plan time to administer enemas, douches, skin preps (if ordered), and shave preps (if ordered), to allow patient to bathe or shower, to perform patient-teaching, and to administer preoperative medications.

Implementation	Yes	No
1. Check vital signs.	____	____
2. Perform head-to-toe physical assessment and document.	____	____
3. Secure valuables.	____	____
4. Verify lab values were completed and results recorded on chart.	____	____
5. Verify x rays were completed and results recorded on chart.	____	____
6. Verify EKG is completed and results recorded on chart.	____	____
7. Verify operative consent form signed.	____	____
8. Verify skin prep is completed (if ordered).	____	____
9. Verify shave prep is completed (if ordered).	____	____
10. Verify nail polish is removed.	____	____
11. Verify makeup is removed.	____	____
12. Verify hospital gown is placed and underwear removed (hospital policy).	____	____
13. Record amount and time of void.	____	____
14. Verify catheter is placed (if ordered).	____	____
15. If catheter is in place, record amount emptied and time.	____	____
16. If patient has allergies, verify they are listed.	____	____
17. Check that antiembolism stockings are in place, if ordered.	____	____
18. Verify NPO and record time.	____	____
19. Perform psychological assessment and document.	____	____
20. Verify appropriate pre-op teaching completed.	____	____

Math Application Skills
- Use English and metric measures

Functional Math Skills
- Make measurements

General Science Skills
- Use scientific instruments (sphygmomanometer)

Life Science Skills
- Investigate/apply principles of anatomy/ physiology
- Investigate health issues (medical, ergonomic, nutrition, mental health)

Interactive Communication Skills
- Communicate with clients/customers

General Relating Skills
- Interact with clients/ customers/patients

Job Acquisition/ Development Skills
- Master specific job task/procedure
- Practice good work habits/attitudes
- Deal effectively with customers/clients

	Yes	No
21. Check preoperative medication administered: drug and dose, time of administration; if IM, document landmark used.	____	____
22. Raise side rails of bed.	____	____

Evaluation

	Yes	No
1. Ensure patient safety.	____	____
2. Review checklist for completion.	____	____
3. Notify physician of any abnormalities.	____	____

Documentation

	Yes	No
Record name, date, and time on checklist form.	____	____

(End of Job Sheet)

SKILL TEST RECORD

EVALUATOR'S COMMENTS

PRODUCT EVALUATION

Evaluator note: Rate the student on the following criteria by circling the appropriate numbers. Each criterion must receive a rating of "3" or higher to demonstrate student mastery. (See Performance Evaluation Key.) A student who is unable to demonstrate mastery should review the material and submit another product for evaluation.

Criteria:

Students followed all steps under Implementation	4	3	2	1
Student documented correctly	4	3	2	1

EVALUATOR'S COMMENTS

AVERAGE RATING

Evaluator note: To obtain an average rating for the Competency Profile, total the designated points in "Product Evaluation" and divide by the total number of criteria. Circle the rating on the "Performance Evaluation Key" below.

PERFORMANCE EVALUATION KEY

4 **Skilled** – Can perform job with no additional training
3 **Moderately Skilled** – Has performed job during training program; limited additional training may be required
2 **Limited Skill** – Has performed job during training program; additional training is required to develop skill
1 **Unskilled** – Is familiar with process, but is unable to perform job

WRITTEN TEST

PROVIDING CARE FOR THE PREOPERATIVE PATIENT

VI

Name ______________________________ Score ____________

OBJECTIVE 1

Match terms associated with preparation and care of the preoperative patient to their correct definitions. Write the correct letters in the blanks.

Part I

_____ 1. Entrance into the body

_____ 2. Lack of necessary or proper food substances in the body

_____ 3. The branch of medicine that deals with the diseases and hygiene of old age

_____ 4. Transfusion of blood that has been donated by patient in advance of surgery

_____ 5. Urinary tract infection

_____ 6. Acquired hypersensitivity to a substance

_____ 7. Nothing by mouth

a. allergy

b. anesthesiologist

c. autologous blood transfusion

d. geriatrics

e. invasion

f. malnutrition

g. minor

h. NPO

i. pediatrics

j. UTI

k. WBC

May be photocopied for student use.

Part II

_____ 1. Branch of medicine dealing with the development and care of infants and children and the treatment of their diseases

_____ 2. A physician specializing in anesthesiology

_____ 3. Person not of legal age

_____ 4. WBC

_____ 5. Fright or dread

_____ 6. A record of electrical activity of the heart, useful in diagnosis of abnormal cardiac rhythm or MI

_____ 7. RBC

a. allergy
b. anesthesiologist
c. EKG
d. fear
e. geriatrics
f. malnutrition
g. minor
h. NPO
i. RBC
j. UTI
k. WBC

OBJECTIVE 2

Select the word or phrase that completes statements concerning common preoperative nursing assessments and care. Write the correct letters in the blanks.

_____ 1. A common preoperative procedure completed the night before surgery includes

a. enemas
b. removal of dentures
c. placement of antiembolic stockings
d. preoperative injection

_____ 2. When preparing a patient for surgery, it is important to provide the patient with

a. physical care
b. psychological care
c. spiritual care
d. all of the above

May be photocopied for student use.

_____ 3. When a patient has been taking steroids for a period of time, it is important to remember that steroids

a. aid in wound healing
b. should never be discontinued abruptly
c. lead to prolonged bleeding time
d. all of the above

_____ 4. In checking patients' allergies it would be necessary to check allergies to

a. tape
b. medications
c. seafood
d. all of the above

OBJECTIVE 3

Select the word or phrase that completes statements about preoperative assessments and care. Write the correct letters in the blanks.

_____ 1. Mrs. Long is to have a cholecystectomy this morning. Immediately before transferring patient to O.R., the nurse would most likely:

a. administer a bedtime sedative
b. give her a cleansing enema
c. check to insure she had been NPO for 24 hours
d. encourage her to empty her bladder immediately before surgery

_____ 2. Mr. Wallace is having a colonoscopy procedure this morning. The nurse would most likely check to ensure the patient had

a. taken a shower
b. signed the consent form
c. been placed in a comfortable position
d. seen his clergyman

May be photocopied for student use.

_____ 3. Mrs. Caldwell's preop medications are Demerol and Phenergen which have been ordered on call. At 07:30 the O.R. calls and gives the order to give preop. The nurse doesn't administer the medication until 08:00. The result of the delay in giving the medication will probably be that

a. the desired effect of the medication will be past
b. the desired effect of the medication will be just right
c. the desired effect will not yet have occurred
d. there is no significant difference

_____ 4. After administering the preop medication, it is important for the nurse to perform all of the following *except*

a. pulling the side rails up for safety.
b. placing the bed in the high position.
c. instructing the patient not to get up alone.
d. cautioning the patient against smoking unattended.

_____ 5. The last activity for the patient to participate in before receiving the preop medication before surgery is

a. removing accessories and jewelry
b. signing the operative permit
c. emptying bladder
d. removing nail polish

OBJECTIVE 4

List common fears of the adult patient. In the space below, list four common fears of the adult patient.

____

____

____

____

____

____

____

____

May be photocopied for student use.

OBJECTIVE 5

List common fears of the pediatric patient. In the space below, list four common fears of the pediatric patient.

____

____

____

____

____

____

____

____

OBJECTIVE 6

Select appropriate support techniques for patients afraid of surgery. Write the correct letters in the blanks.

_____ 1. Mr. Carter has been diagnosed as having a tumor in his stomach and is scheduled for a gastrectomy in the morning. He has told you, the nurse, that he is afraid he will wake up before the surgery is over or that he won't wake up at all. The most appropriate support technique(s) to use with Mr. Carter is/are

a. to provide him simple explanations
b. to be a good listener
c. to encourage a visit from his clergyman
d. all of these

_____ 2. Mrs. Langston is having a breast biopsy this morning and is very nervous. The most appropriate support technique(s) to use with Mrs. Langston is/are

a. to assure Mrs. Langston that it will be all right and that the pain will go away soon
b. to encourage family support
c. to allow her time alone to gather her thoughts
d. provide detailed explanations of the procedure for a biopsy

May be photocopied for student use.

_____ 3. Mark is an 8-year-old having a hernia repair tomorrow. He has never been in the hospital, and the only family member who has ever been in the hospital was his grandfather, who died in surgery. The most appropriate support technique(s) to use with Mark is/are

a. to allow a tour of the entire operating room and recovery room
b. to encourage him to hold the mask and explain what to expect
c. to allow his parents to stay with him
d. all of these

_____ 4. Stephanie, a 13-year-old admitted to the hospital after a MVA with a fractured pelvis, is having surgery in a few hours. The most appropriate support technique to use with Stephanie is

a. to minimize her exposure before surgery
b. to keep Stephanie isolated from her family
c. to avoid explanations because she's too young to understand
d. to assure her that the pain will be minimal after surgery

OBJECTIVE 7

Select the word or phrase that completes statements concerning the special needs of the geriatric patient. Write the correct letters in the blanks.

_____ 1. Because of the normal aging process of the cardiovascular system, geriatric patients have an

a. increased potential for blood clots
b. increased potential for CVA
c. increased potential for infection
d. all of these

_____ 2. Mrs. Clinton has a history of blood clots postoperatively. The most appropriate intervention for her would be

a. to administer any prescribed preop medication IM
b. to place antiembolism stockings (after receiving a physician's order)
c. to delay ambulation after surgery
d. all of these

May be photocopied for student use.

_____ 3. Poor wound healing is a special need of geriatric patients caused by

a. malnutrition
b. the aging of the integumentary system
c. a decrease in skin turgor
d. all of these

_____ 4. In caring for geriatric patients, the nurse should remember that

a. elderly patients have a faster metabolism
b. elderly patients are more susceptible to infections
c. medications absorb faster, so elderly patients must be observed closely
d. none of these

OBJECTIVE 8

Discuss the types of consent forms. In the space below, discuss the types of consent forms.

1. Operative consent forms: ______________________________

2. Blood consent forms: ______________________________

May be photocopied for student use.

3. Specialized sterilization consent forms: ______________________

4. Invasive procedure consent forms: ______________________

OBJECTIVE 9

Discuss the reasons for informed consent. In the space below, discuss three reasons for informed consent.

1. ______________________

May be photocopied for student use.

2. ____

____

____

____

____

____

3. ____

____

____

____

____

____

____

OBJECTIVE 10

Select true statements concerning the legal implications of informed consent and the use of consent forms. Write an "X" in the blank before each true statement.

_____ 1. If a consent form is signed after preoperative medication is administered, the form is not a legal document.

_____ 2. Emancipated minors must have a consent form signed by their parents or legal guardians.

_____ 3. In an emergency, a surgeon can perform a surgical procedure without a signed consent form.

_____ 4. Mentally incompetent patients must have the legal guardian or parent sign the consent form.

_____ 5. If a patient is unable to sign his/her name, an X can be written by the patient, with two people witnessing the signature.

May be photocopied for student use.

OBJECTIVE 11

Select factors which increase high surgical risk. Write the correct letters in the blanks.

_____ 1. Mr. Sanders is an 88-year-old male who is having prostate surgery in the morning. A factor that would increase his risk during surgery is his

a. history of alcoholism
b. smoking
c. age
d. disease

_____ 2. Mrs. Franklin, a 46-year-old female, is five feet and four inches tall and weighs 240 pounds. She quit smoking eight years ago. A factor that would increase her risk of surgery is her

a. age
b. smoking
c. malnutrition
d. obesity

_____ 3. Mr. Little is a 65-years-old male scheduled for open heart surgery tomorrow. He has a history of chronic lung disease. A factor that would increase his risk of surgery is his

a. smoking
b. history of respiratory disease
c. malnutrition
d. history of alcoholism

OBJECTIVE 12

Select true statements concerning dietary needs of preoperative patients. Write an "X" in the blank before each true statement.

_____ 1. All surgery patients should be NPO the night before surgery unless otherwise ordered.

_____ 2. If patients are dehydrated before surgery, parenteral fluids are initiated.

_____ 3. Most anesthesiologists prefer that their patients have a clear liquid diet before surgery.

_____ 4. If a patient is having bowel surgery, the surgeon will probably order a high residue diet several days before surgery.

_____ 5. Patients are NPO to increase the possibility of aspiration during or immediately after surgery.

May be photocopied for student use.

OBJECTIVE 13

Discuss the importance of preoperative teaching. Use the space below to discuss the importance of preoperative teaching. Include some of the benefits of preoperative teaching in your answer.

____

____

____

____

____

____

____

____

____

____

____

OBJECTIVE 14

Select appropriate preoperative teaching topics for patient education. Write the correct letters in the blanks.

_____ 1. Mrs. Martin has been admitted for a colostomy, scheduled for the following morning. The most appropriate patient-teaching topic for Mrs. Martin would be

a. an explanation of the drains, tubes, and drainage appliances
b. the use of the urinal
c. prevention of deep breathing
d. none of these

_____ 2. Mrs. Wight has just returned from the recovery room after having a hysterectomy. She smokes two packs of cigarettes daily. The most important teaching topic to cover with this patient would be

a. early ambulation
b. active body movements
c. relaxation skills
d. turning, deep breathing, and coughing

May be photocopied for student use.

_____ 3. Mr. Sampson was recently discharged from the hospital after being hospitalized two weeks for a pulmonary embolus. He has now been readmitted to the hospital to have his gallbladder removed. The most important teaching topic to cover with this patient would be

a. turning, coughing, and deep breathing
b. leg exercises
c. an explanation about pain medications
d. an explanation about diet for the first few days

OBJECTIVE 15

Match common preoperative medications with their desired effects. Match the effect with the correct medication by writing the correct letters in the blanks.

_____ 1. Morphine
_____ 2. Atropine and Scopolamine
_____ 3. Dalmane
_____ 4. Phenergen
_____ 5. Fentanyl or Innovar

a. analgesia, state of indifference
b. reduces anxiety and decreases preop pain
c. decreases secretions
d. promotes relaxation
e. antiemetic, also used to reduce anxiety

OBJECTIVE 16

Select criteria for preoperative documentation. Write the correct letters in the blanks.

_____ 1. Mrs. Aaron has been taken to the operating room to have a lung biopsy. All of the following are criteria for preoperative documentation *except*

a. the surgical consent form signed
b. natural hair color
c. vital signs recorded
d. NPO status of the patient

May be photocopied for student use.

_____ 2. Sandy, a 4-year-old, is scheduled for a tonsillectomy this morning. All of the following are criteria for preoperative documentation *except*

a. lab and x-ray reports
b. consent form signed by patient
c. safety status of patient recorded
d. vital signs recorded

_____ 3. Mrs. Roads has just been transported to the hospital after having a MVA. She is unconscious and in shock. It is determined that her liver is lacerated and that she needs immediate surgery. The most important criteria to be documented on the chart is

a. a consent form signed by her
b. a blood consent signed by family
c. preoperative medication administered
d. NPO status of patient

NOTE: Objectives 17 and 18 are evaluated on the job sheet and assignment sheet in this unit. If you have not completed these components, see your instructor.

May be photocopied for student use.

WRITTEN TEST ANSWERS

PROVIDING CARE FOR THE PREOPERATIVE PATIENT

VI

OBJECTIVE 1

Part I		Part II	
1.	e	1.	h
2.	f	2.	b
3.	d	3.	g
4.	c	4.	k
5.	j	5.	d
6.	a	6.	c
7.	h	7.	i

OBJECTIVE 2

1. a
2. d
3. b
4. d (**Note:** Remember seafood can indicate allergies to betadine.)

OBJECTIVE 3

1. d
2. b
3. c
4. b
5. c

OBJECTIVE 4

Answers will vary but should include any four of the following:

Fear of
  - death
  - pain
  - anesthesia
  - cancer
  - exposure
  - unknown
  - separation
  - permanent disability
  - disfigurement
  - financial problems
  - employment obligations

OBJECTIVE 5

Answers will vary but should include any four of the following:

Fear of
  - separation
  - anesthesia
  - mask
  - invasion
  - words such as "knife," "cut," or "bloody"

OBJECTIVE 6

1. d
2. b
3. d
4. a

OBJECTIVE 7

1. d
2. b
3. d
4. b

OBJECTIVE 8

Answers will vary but should include the following:

- Operative consent form
  - right of patient to know risk factors involved
  - requirement for witnesses
  - format of the consent form
  - responsibility of surgeon to explain risks
  - nurse usually a witness to signature

- Blood consent form
  - consent to receive blood transfusion
  - right of patient to refuse

- Invasive consent form
  - consent for invasive procedures such as colonoscopy or bronchoscopy

- Special consent form
  - consent for procedures such as vasectomy or tubal ligation
  - consent of spouse

OBJECTIVE 9

Answers will vary but should include the following:

- Indicates patient's decision was made without pressure
- Protects patient against unauthorized procedures
- Protects surgeon and hospital against legal action

OBJECTIVE 10

1, 3, 4, 5

OBJECTIVE 11

1. c

2. d

3. b

OBJECTIVE 12

1, 2

OBJECTIVE 13

Answers will vary but should include the following:

- Preop teaching will influence the outcome of surgery.
- Patients receiving appropriate preop teaching will
  - have smoother recovery
  - need less pain medication
  - be more cooperative
  - recover faster
  - be discharged from the hospital sooner

OBJECTIVE 14

1. a
2. d
3. b

OBJECTIVE 15

1. b
2. c
3. d
4. e
5. a

OBJECTIVE 16

1. b
2. b
3. b

OBJECTIVE SHEET

PROVIDING CARE FOR THE INTRAOPERATIVE AND POST-ANESTHESIA RECOVERY PATIENT

VII

INTRODUCTION

Intraoperative is the period of time which begins when a patient enters the operating room and ends when the patient arrives in the recovery room. During the intraoperative time period, patients are often both emotional and fearful. The more relaxed patients are before surgery begins, the more successful the operation. The intraoperative nurse aids in comforting intraoperative patients.

The intraoperative nurse provides safety and well-being for intraoperative patients by communicating with the surgeon, the anesthesiologist, the surgery nurses, the laboratory technician, the x-ray technician, the pathologist, and the families of the patients.

UNIT OBJECTIVE

This unit presents the differences between sterile and non-sterile fields, the roles of the operating room nurses, information on common anesthetics, safety measures in the operating room, and information on immediate post anesthesia recovery room care. This unit also presents information on correctly dressing in surgical attire, performing surgical scrubs, and opening sterile packs. In addition, students will demonstrate these competencies by completing job sheets and the written test with a minimum of 85 percent accuracy.

PREREQUISITE

Nursing Principles and Skills
Nursing Concepts
Body Structure and Function
"Applying Basic Principles of Medical-Surgical Care"
"Providing Care for the Patient with Pain"
"Providing Care for the Preoperative Patient"

SPECIFIC OBJECTIVES

After completing this unit, the student will be able to:

1. Match terms associated with the care of the intraoperative patient to their definitions.
2. Select from a list basic rules of surgical asepsis.
3. Select from a list restrictive areas of the surgical department.
4. List the appropriate surgical attire for operating room personnel.
5. Distinguish between responsibilities of sterile and clean personnel.

6. Select the word or phrase that completes statements concerning the classifications of anesthetics.

7. Arrange in order the stages of general anesthesia.

8. Select from a list basic safety precautions.

9. Select true statements about immediate post-anesthesia/recovery room care.

10. Put on a surgical mask. (Job Sheet 1)

11. Perform a surgical scrub. (Job Sheet 2)

12. Put on a sterile gown and gloves. (Job Sheet 3)

13. Open a sterile pack. (Job Sheet 4)

PREPARATION

- Review the unit and plan your presentation.
- Review teaching suggestions and plan classroom activities.
- Order materials to supplement the unit.
- Invite guest speakers.

  NOTE: Please provide the guest speaker with the specific topic relevant to the unit of instruction ahead of time. You may want to supply the objective sheet, information sheet, and any other components you want the speaker to cover. Confirm the scheduled appearance two to three days prior to the presentation.
- Arrange for students to tour the operating room.
- Arrange for an anesthesiologist to present types of anesthesia.
- Arrange for intraoperative nurses, one scrub nurse, and one circulating nurse, to perform a skit in the classroom dramatizing their various duties.
- Rotate students through the operating room.
- **HOSA** Integration:
  - Assign a skit dealing with safety in the intraoperative area and a three-minute speech according to HOSA guidelines.
  - Draw posters concerning safety.

    EXAMPLE: Keeping wheels locked on carrier, according to HOSA guidelines

DELIVERY

- Discuss the unit and the specific objectives.
- Present a lecture on the information sheets.
- Encourage students to use the intraoperative care computer software, if computers are available.
- Arrange for guest speakers.

Objective 1: Match terms associated with the care of the intraoperative patient to their definitions.

- Discuss the terms and definitions associated with intraoperative nursing.

Objective 2: Select from a list basic rules of surgical asepsis.

- Discuss the basic rules of surgical asepsis.

- Direct the students in role-play to help them identify basic rules of asepsis.

- Show *OR Procedures: Maintaining the Sterile Field.*

Objective 3: Select from a list restrictive areas of the surgical department.

- Discuss the areas of the surgical department and help students distinguish these areas from other areas of the hospital.

Objective 4: List the appropriate surgical attire for operating room personnel.

- Discuss the appropriate attire for surgical room personnel.

- Arrange for one scrub nurse and one circulating nurse to attend class and discuss proper surgical attire. The nurses might role-play and improperly wear their surgical attire.

Objective 5: Distinguish between responsibilities of sterile and clean personnel.

- Discuss the differences between clean and sterile, and explain which members of the intraoperative team must be sterile and which must be clean only.

- Show *OR Procedures: Surgical Skin Preparation.*

Objective 6: Select the word or phrase that completes statements concerning the classification of anesthetics.

- Discuss the classification of anesthetics. Discuss how each is administered.

- Arrange for an anesthesiologist to attend class to speak about the different classifications of and the administering of anesthesia. The anesthesiologist might administer an epidural on a lab mannequin and explain how to properly position the patient during the procedure.

Objective 7: Arrange in order the stages of general anesthesia.

- Discuss the stages of general anesthesia.

Objective 8: Select from a list basic safety precautions.

- Discuss basic safety precautions.
- Assign either a three-minute speech or a skit on safety in the intraoperative areas. Have students use posters.
- Show *Positioning the Surgical Patient.*

Objective 9: Select true statements about immediate post-anesthesia/recovery room care.

- Discuss immediate post-anesthesia/recovery room care.

APPLICATION

Objective 10: Put on surgical mask.

- Use Job Sheet 1 to give students hands-on experience putting on a surgical mask.

Objective 11: Perform a surgical scrub.

- Use Job Sheet 2 to give students hands-on experience performing a surgical scrub.

Objective 12: Put on a sterile gown and gloves.

- Use Job Sheet 3 to give students hands-on experience putting on a sterile gown and gloves.

Objective 13: Open a sterile pack.

- Use Job Sheet 4 to give students hands-on experience opening a sterile package.

EVALUATION

Pretest

- Give written test as pretest.
- Determine individual study requirements from pretest results.
- Counsel students individually on pretest results and study requirements.
- Modify materials in unit or create supplementary materials for individual students as required.

Skill Test

- Evaluate students on job sheet activities.
- Complete appropriate section of competency profiles.
- Reteach and reevaluate if necessary.
- Review individual and group performance in order to evaluate teaching methods. Adjust scope, sequence, or instructional approaches for additional lessons as required.

Written Test

- Explain to students that they will be asked to demonstrate on the written test actions listed in the specific objectives.
- Evaluate the job sheets previously completed.
- Give the written test.

  NOTE: The written test may be given in sections if desired.
- Teach and retest if necessary.
- Complete the appropriate competency profile sections.
- Review individual and group performance in order to evaluate teaching methods. Adjust scope, sequence, or instructional approaches for additional lessons as required.

SUGGESTED RESOURCES

Electronic Media

- *OR Procedures: Positioning the Surgical Patient.* (VHS, 27 min.)
- *OR Procedures: Surgical Skin Preparation.* (VHS, 17 min.)
- *OR Procedures: Maintaining the Sterile Field.* (VHS, 18 min.)

The above videos are available from:

Medcom, Inc.
12601 Industry Street
Garden Grove, CA 92641
(800) 877-1443

Print Media

- Allen, Sarah, Glenda Coleman, Danene Hartman, and Mary Kellum. *Surgical Techniques.* Oklahoma State Curriculum 3. Oklahoma Department of Vocational and Technical Education: Stillwater, OK, 1985.
- Brunner, Lillian and Doris Suddarth. *Textbook of Medical-Surgical Nursing* (6th ed.). J.B. Lippincott Co.: Philadelphia, 1988.
- Kneedler, Julia and Gwen Dodge. *Perioperative Patient Care.* Blackwell Scientific Publications: Boston, 1983.
- O'Neale, Mary. *Proposed Recommended Practices.* AORN Journal 50, 1989.
- Phipps, Wilma, Juanita Long, and Nancy Woods. *Medical-Surgical Nursing.* C.V. Mosby Co.: St. Louis, 1987.

UNIT REFERENCES

Print Media

- Allen, Sarah, Glenda Coleman, Danene Hartman, and Mary Kellum. *Surgical Techniques.* Oklahoma State Curriculum 3. Oklahoma Department of Vocational and Technical Education: Stillwater, OK, 1985.
- Brunner, Lillian and Doris Suddarth. *Textbook of Medical-Surgical Nursing* (6th ed.). J.B. Lippincott Co.: Philadelphia, 1988.
- Kneedler, Julia and Gwen Dodge. *Perioperative Patient Care.* Blackwell Scientific Publications: Boston, 1983.
- O'Neale, Mary. *Proposed Recommended Practices.* AORN Journal 50, 1989.
- Phipps, Wilma, Juanita Long, and Nancy Woods. *Medical-Surgical Nursing.* C.V. Mosby Co.: St. Louis, 1987.

OBJECTIVE 1

Match terms associated with the care of the intraoperative patient to their definitions.

- **anesthesia** – loss of sensation with or without consciousness
- **asepsis** – absence of pathogens
- **aseptic technique** – procedure which eliminates pathogens from an object or an area and keeps the object or area free of pathogens
- **bleeder** – severed blood vessel
- **coagulation** – process of clotting
- **contaminate** – process of introducing microorganisms to a sterile field
- **electrocautery** – process of cauterizing by means of electrical current
- **general anesthesia** – loss of sensation and protective reflexes over the entire body
- **hypothermia** – body temperature below normal
- **intraoperative** – period of time which begins when a patient enters the operating room
- **local anesthesia** – loss of sensation in a specific area
- **non-sterile** – presence of pathogens
- **post-anesthesia recovery** – period of time which begins when the patient leaves the operating room and arrives at the recovery room and ends when the patient leaves recovery to be taken to a room on the floor
- **safety strap** – used to secure a patient on the operating room table
- **sterile field** – sterile area around the operation site, including furniture covered with sterile drapes and members of the surgical team properly attired

- **suction** – act of drawing up liquid by reducing the air pressure over the surface

- **surgical scrub** – process of reducing the number of microorganisms from the hands and arms to a safe level before participating in the operating room procedures by washing with chemical antiseptics for a specified length of time

- **surgical sponge** – sterile, absorbent, lint-free material which is used during operations. Surgical sponges are available in various sizes and shapes, and they have radiopaque marking strips

OBJECTIVE 2 **Select from a list the basic rules of surgical asepsis.**

- Sterile surfaces must never come into contact with non-sterile surfaces.

- Most personnel and equipment must be protected by sterile barriers.

- **If there is any doubt about the sterilization of a field, it is considered unsterile.**

- If a liquid is spilled on the outside of a sterile package, the package is contaminated.

- Any sterile instrument that is opened and not used on a patient is considered contaminated. It cannot be used for another patient until it is sterilized again.

- After personnel are scrubbed for a case, they must remain in the sterile field. If they leave the area, they must scrub again before reentering.

- After a person is scrubbed and dressed in sterile surgical attire, the sterile areas range from the nipple line to the waist, and from the gloved hands to the sleeves two inches above the elbow. Sterile personnel must never stand with hands positioned under the axilla.

- Operating room personnel must keep their gloved hands in front of them and not above their nipple line and not below their waists.

- When two people dressed in surgical attire, such as the nurse and a doctor, pass each other, they must do so front to front or back to back with their hands in the sterile range.

- The circulating nurse or any unsterile person should remain a safe distance from the sterile field and the sterile table.

- Draped tables are considered sterile only on top; any drape hanging off the table is considered contaminated.

- Edges of sterile packages are unsterile because the circulating nurse or the unsterile nurse must open the corners of the packages to hand sterile instruments to the scrub nurse during the operation.

- Once the sterile drapes are placed over the patient by the doctor and scrub nurse, the drapes should never be moved.

- If any of the drapes are torn, all instruments must be re-sterilized.

- The unsterile nurses must not extend their arms over the sterile field.

- When pouring sterile fluids, all personnel must ensure that the sterile field is not touched and that fluid does not splash.

- The sterile field must be set up as near the time of the operation as possible. Once it is set up, it must not be left unattended.

- Movement must be kept to a minimum during surgery.

- Speech must be kept to a minimum during surgery.

OBJECTIVE 3

Select from a list restrictive areas of the surgical department.

The surgical areas of most hospitals are enclosed, and surgical attire must be worn by all personnel. Male and female dressing rooms are available. Nurses wear street clothes to work and change into scrub suits provided by the hospital.

There are a few areas which may be entered without a scrub suit including:

nursing office or desk – usually has a red line drawn to alert unscrubbed personnel where the sterile area begins and scrubbed attire must be worn

dressing rooms – designed for unscrubbed personnel to change into scrub suits

holding area – designated for scrub attire

NOTE: The patient's family members commonly stay with the patient in the holding area, and they are not wearing scrub attire.

The rest of the areas in the operating room suite are designated sterile attire only. They include

sterile hallways – between the operating room suites

sterile supply rooms – where sterile supplies are stored

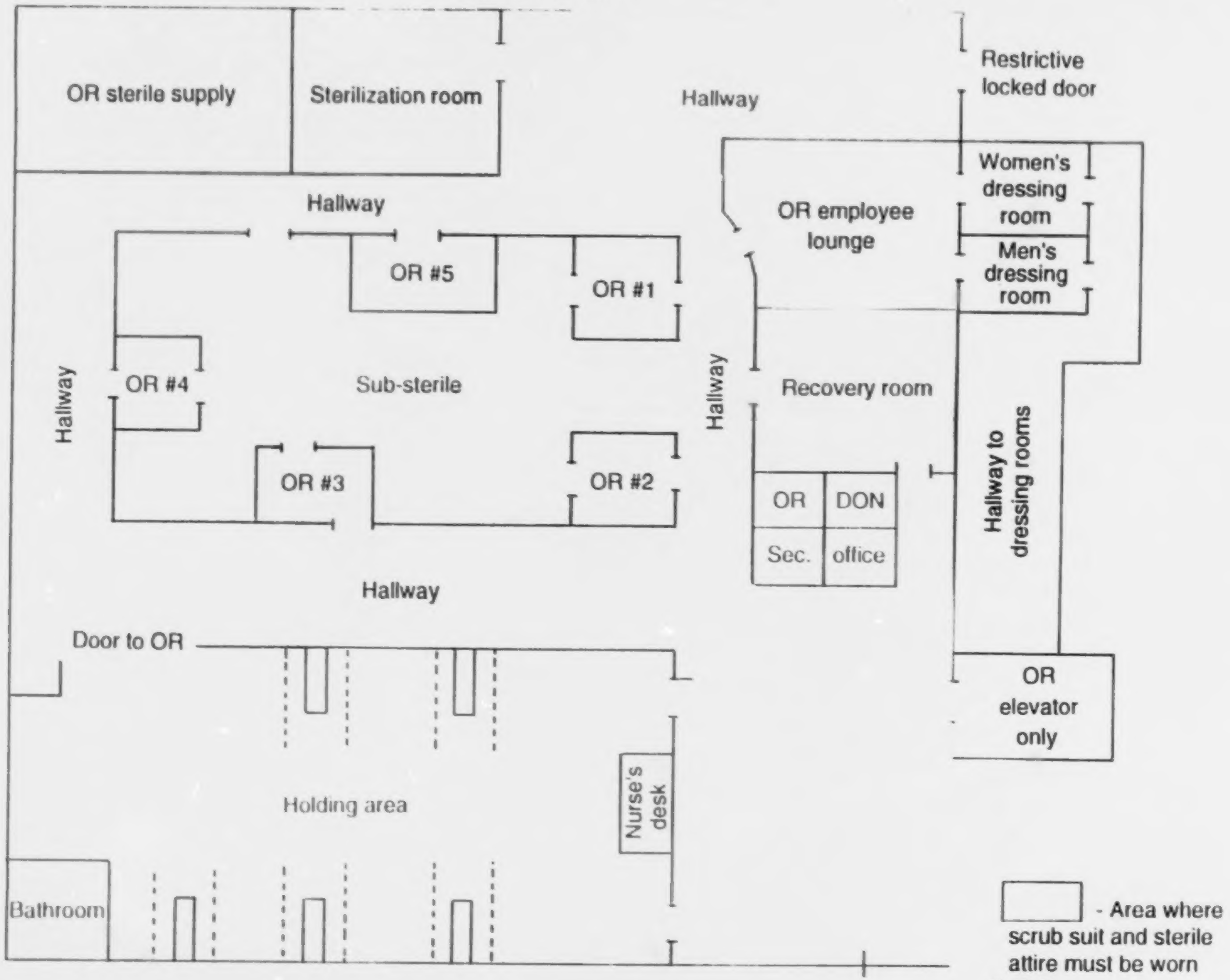
sub-sterile supply rooms – where sutures and autoclaves are stored

scrub sink area – found either in the hallways between O.R. suites or in the sub-sterile areas

operating room – personnel must be in scrub attire and must be wearing a mask before entering

recovery room – also requires scrub attire

Sample Medical-Surgical Floor Plan



OBJECTIVE 4

List the appropriate surgical attire for operating room personnel.

All personnel entering the operating room suite must be wearing approved attire. The scrub suits are purchased and laundered through the hospital and are of special material meeting the standards of National Fire Protection and OSHA.

The scrub suit consists of a top, pants (usually with ankle closure), disposable shoe protectors, and a disposable cap and mask. For men, the cap is designed to cover any facial hair. According to OSHA regulations, personnel will be wearing protective goggles. All personnel will be wearing this attire if they enter the operating room suites.

The surgeon, surgeon assistant, and scrub nurse wear sterile gowns and gloves in addition to regular scrub attire because they will be working directly with the patient and therefore **MUST** be sterile.

Most hospital policies prohibit O.R. personnel from wearing jewelry. Some hospitals allow the circulating nurse and anesthesia personnel to wear minimal jewelry, but no jewelry is to be worn by the scrub nurse or surgeon.

Short fingernails are a requirement for everyone, and nail polish is unacceptable.

OBJECTIVE 5

Distinguish between responsibilities of sterile and clean personnel.

Sterile personnel include

- **surgeon** – responsible for performing the surgical procedure
- **surgeon's assistant** – surgeon, physician's assistant, or scrub nurse who assists the surgeon during the procedures
- **scrub nurse** – an R.N, an L.P.N, or a CST (Certified Scrub Technician)

NOTE: In most cases, scrub nurses are L.P.N.s.

A scrub nurse

- sterilizes supplies for the procedure
- anticipates surgical needs and passes instruments during the operation

  - participates in the instrument, sponge, and needle count
  - assists the surgeon in gowning and gloving

Clean personnel include

- **anesthesiologist** – administers the anesthesia and monitors patient's condition during procedure
- **laboratory technician** – draws blood samples for testing during the procedures as requested by the surgeon or anesthesiologist
- **x-ray technician** – may be asked to remain in O.R. for procedures requiring x rays to determine if bones are in the correct position or patency of the common bile duct
- **circulating nurse** – usually an R.N.

  A circulating nurse

  - coordinates all activities in the operating room
  - creates and maintains a safe environment for patients by preserving sterility, adjusting room temperature, and adjusting the humidity
  - assists the anesthesiologist
  - opens sterile packages during procedure
  - plugs drill and saw cords into electrical outlets
  - connects suction tubing from the sterile field to the suction containers and maintains them throughout the procedure
  - positions patient after induction
  - performs shave prep and sterile scrub prep
  - attaches grounding device to patient
  - adjusts lights before procedure begins
  - handles all non-sterile equipment
  - ties the gowns of scrub nurse and surgeon
  - preserves all specimens

- documents and charts
- communicates with the patient's family members, other doctors, pathologist, and other hospital personnel during the procedure
- participates in the instrument, sponge, and needle count

OBJECTIVE 6 **Select the word or phrase that completes statements concerning the classifications of anesthetics.**

General Anesthesia

General anesthesia causes unconsciousness and makes the patient non-responsive to stimuli.

General anesthesia consists of inhalational or intravenous methods.

- **Inhalational Anesthesia**

  Inhalational anesthesia is administered by sending vapors from pressurized liquids or gases through an endotracheal (E-T) tube or a mask. Endotracheal tubes are inserted through the nose or mouth to the trachea.

  In order to use inhalational anesthesia, the patient must be NPO.

- **Intravenous Anesthesia**

  Neuromuscular block is a type of intravenous anesthesia to facilitate endotracheal intubation for the prevention of laryngospasm and to provide adequate muscle relaxation during surgery. These drugs cause temporary paralysis of the body.

Regional Anesthesia

Regional anesthesia blocks certain nerves while the patient remains conscious.

- **Spinal Block**

  Spinal block is injected directly into the subarachnoid spaces of the spinal cord.

- **Epidural Block**

  Epidural block is injected into surrounding dura mater without entering the spinal fluid.

- **Caudal Block**

  Caudal block is injected into the caudal canal and the sacral area.

- **Local Block**

  Local block is injected into one area and provides analgesia over that area. Topical anesthesia is a local block that is applied directly to the skin. Infiltration anesthesia is a local block that is injected into a specific area before an incision is made.

OBJECTIVE 7

Arrange in order the stages of general anesthesia.

- **Stage 1 — Induction**
  Begins when the anesthesia is administered and ends with the loss of consciousness

- **Stage 2 — Excitement**
  Begins with the loss of consciousness and ends with the loss of eyelid reflexes

- **Stage 3 — Relaxation**
  The time during which patients are relaxed, unconscious, and physiologically stable. The operation is performed during this stage.

- **Stage 4 — Danger**
  Occurs if patient receives an excess of anesthesia. Anesthesia must be discontinued immediately.

OBJECTIVE 8

Select from a list basic safety precautions.

- Observe universal precautions and wear appropritate attire.
- Check patient's ID bands.
- Ensure that patient is NPO so he/she does not aspirate if nauseated and vomiting.
- Check consent forms for patient's signatures.
- Check blood consent forms for patient's signatures.

- Push the stretcher from the head in so that patient travels facing forward.
- Walk at a moderate pace.
- To prevent dizziness in patient, avoid rapid movements when transporting.
- Avoid abrupt stops and turns with the stretcher.
- Avoid bumping into walls with the stretcher.
- Secure patient with the stretcher safety strap to protect patient from injury.
- Lock the stretcher wheels when transferring patient between the stretcher and the operating room table.
- Never leave patient unattended.
- Ensure that adequate help is available when transferring patient between the stretcher and the operating room table. A minimum of four people are needed to move an unconscious patient.
- Always use extra padding on areas such as heels and elbows to prevent pressure on nerves during the operation.
- Keep intravenous lines and catheter tubing in correct position to prevent tubing kinks.
- To prevent burns to skin when using warming or cooling pads, carefully observe patient's temperature.
- Provide extra blankets to prevent hypothermia.
- Always allow the anesthesiologist to position the head and shoulders of patients to prevent extubation and injury.
- To prevent irreversible nerve damage, do not hyperextend patient's arms on the arm board.
- Determine if patient is allergic to any particular preparation solutions. Many patients are allergic to the preparation solution.

- Avoid spilling preparation solution on patient, and do not allow preparation solution to pool under patient when completing the surgical scrub procedure.
- The scrub nurse and circulating nurse must count all needles, sponges, and instruments a total of three times. (The first time before the operation begins, then as surgeon is closing fascia, and again the third time as the surgeon closes the skin.)
- Wash off all preparation solutions because they lead to skin irritation.
- Immediately after surgery, dressings are placed on incision areas by the doctor and the scrub nurse.
- Transfer the patient from the operating room table to the stretcher for transportation to the recovery room.
- Use caution when transferring patient.
- Position patient on side or with head of bed elevated to prevent aspiration if patient becomes nauseated and vomits.
- Place both side rails in the up position.

OBJECTIVE 9

Select true statements about immediate post-anesthesia/recovery room care.

- Transport patient to the recovery room, accompanied by the circulating nurse and the anesthesiologist.
- The first concern in the recovery room is that patient has an open airway.
- Auscultate patient's breathing.
- Monitor vital signs every five minutes.
- Place warm blankets over patient.
- Assess patient's level of consciousness.
- Assess patient's skin integrity.

- Assess drains, catheters, and intravenous tubes.
- Assess for hemorrhage by examining dressings and monitoring vital signs.
- Assess pain and medicate patient.
- Assess patients for signs of shock.

⚠ **CAUTION:** NEVER leave patient unattended!

357

JOB SHEET 1

Development of:
READING SKILLS
WRITING SKILLS
SCIENCE SKILLS
EMPLOYABILITY SKILLS

- Introduce the assignment to the students by discussing why reading, writing, science, and employability skills are important.

- Discuss with them the following skills which are relevant to this task:

  READING

  - Following written instructions

  WRITING

  - Completing forms and records

  SCIENCE

  - Investigating health issues

  EMPLOYABILITY

  - Mastering a specific job task/procedure

  - Practicing good work habits/attitudes

- If students have difficulty following written instructions:

  - Discuss the possible consequences of not following instructions precisely, including procedural changes, time loss, and patient care concerns.

  - Have them read the instructions several times, noting the key words and ideas.

  - Explain to students that illustrations are also part of the instructions. Encourage them to compare their work to that shown in photographs and drawings.

  - Have students review the reason behind each step and procedure.

- If students have difficulty completing forms and records:
  - Examine the structure of the forms being used.
  - Stress the importance of accurate, legible records.
  - Review procedures for obtaining and disseminating information contained in the forms, as appropriate for clinic policies and patient condition.
  - Refer them to the documentation unit in *Nursing Principles and Skills* or another reliable source.

- If students have difficulty investigating health issues:
  - Have them identify the issues they are considering.
  - Have them explain the link between the issue and the procedure.
  - Refer them to standard references to answer questions they may have. Review the use of references, if needed.

- If students have difficulty mastering a specific job task/procedure:
  - Review the need for and importance of each step of the procedure.
  - Emphasize the fact that practice makes a person proficient and proficiency makes a person confident.
  - Suggest that they study each component of the procedure to determine which area is causing difficulty.
  - Review the entire procedure.
  - Team students having difficulty with proficient students or professionals to practice the job task/procedure.
  - Review the role of each surgery team member and identify how the student's performance affects other team members.

- If students have difficulty practicing good work habits/attitudes:
  - Encourage them to become familiar with the entire procedure before they begin the work.

- Discuss the role that good work habits and attitudes have in successful surgeries and in obtaining and retaining employment.

- Discuss what behaviors and attitudes constitute good work habits.

- Make sure students know what is expected of them and why each responsibility is important.

JOB SHEETS 2-4

Development of:
READING SKILLS
SCIENCE SKILLS
EMPLOYABILITY SKILLS

- Introduce the assignment to the students by discussing why reading, science, and employability skills are important.

- Discuss with them the following skills which are relevant to this task:

  READING

  - Following written instructions

  SCIENCE

  - Investigating health issues

  EMPLOYABILITY

  - Mastering a specific job task/procedure

  - Practicing good work habits/attitudes

- For suggestions on teaching basic skills, refer to suggestions for Job Sheet 1.

JOB SHEET 1

PROVIDING CARE FOR THE INTRAOPERATIVE AND POST-ANESTHESIA RECOVERY PATIENT

VII

Name ______________________ Score __________

OBJECTIVE 10

Open a sterile pack.

INTRODUCTION

Begin the intraoperative procedure by opening the sterile package without contaminating its contents.

EQUIPMENT AND SUPPLIES

- Table
- Sterile package
- Basic surgical attire

PROCEDURE

Assessment and Analysis	Yes	No
1. Inspect the outside of the sterile package for any visible tears or rips. Pay special attention to sterile indicators such as strip or tape and expiration date.	_____	_____
2. Ensure that it is the appropriate package for the procedure.	_____	_____
Planning		
1. The package must be opened and positioned on the sterile table just before the surgery begins.	_____	_____
Implementation		
1. Position the sterile package on table so that it can be opened lengthwise.	_____	_____

Functional Reading Skills
- Follow written instructions

Functional Writing Skills
- Complete forms and records

Life Science Skills
- Investigate health issues (medical, ergonomic, nutrition, mental health)

Job Acquisition/ Development Skills
- Master specific job task/procedure
- Practice good work habits/attitudes

	Yes	No
2. When opening large sterile packages on the table, pull the flaps toward the body so that hands and arms do not extend over the sterile field. When opening smaller packages in hand, pull flaps away from the body to prevent contamination.	____	____
3. Handle only the sterile edges of the package linen.	____	____
4. After the scrub nurse completes the scrub and puts on a sterile gown and gloves, he or she sets up the table.	____	____
5. Without touching the sterile table, carefully drop sterile items on the table. To avoid tearing or puncturing the sterile field, do not drop the instruments with the point facing downward. If the sterile table is touched, torn, or punctured, it is contaminated, and the sterilization process must be repeated.	____	____
6. When approaching the sterile table, hold the sterile tray or the small package in one hand away from the body.	____	____
7. To open a small package, hold the package in one hand and pull the flaps downward away from the body.	____	____
8. Hold the small package in one hand while removing the wrapper.	____	____
9. Hand the unwrapped sterile portion of the package to the scrub nurse and allow him or her to place it on the sterile table, or place the unwrapped sterile portion on the outer edge of the sterile table and then remove the rest of the wrapper.	____	____

	Yes	No
Evaluation		
1. Verify that the package was opened with the sterile technique.	____	____
2. Verify that the package was handed to a sterile person or that it was placed on the outer edge of the sterile table without being contaminated.	____	____
3. Sign the operating room record after the operation. Some operating room forms request the signature of the person who opened the sterile package. Any internal device placed in patients during surgery, such as ear tubes, orthopedic implants, or cataract implants, have special sterilization codes that must be recorded on the operating room form. Patients with pacemakers or catheters must keep a copy of the sterilization codes, model numbers, serial code numbers, and expiration dates.	____	____

(End of Job Sheet)

SKILL TEST RECORD

EVALUATOR'S COMMENTS

____

____

____

PRODUCT EVALUATION

Evaluator note: Rate the student on the following criteria by circling the appropriate numbers. Each criterion must receive a rating of "3" or higher to demonstrate student mastery. (See Performance Evaluation Key.) A student who is unable to demonstrate mastery should review the material and submit another product for evaluation.

Criteria:

Student maintained sterility when opening sterile pack	4	3	2	1
Placed sterile instruments on table without contaminating sterile field	4	3	2	1
Correctly documented sterility codes of specific implants	4	3	2	1

EVALUATOR'S COMMENTS

AVERAGE RATING

Evaluator note: To obtain an average rating for the Competency Profile, total the designated points in "Product Evaluation" and divide by the total number of criteria. Circle the rating on the "Performance Evaluation Key" below.

PERFORMANCE EVALUATION KEY

4 **Skilled** – Can perform job with no additional training
3 **Moderately Skilled** – Has performed job during training program; limited additional training may be required
2 **Limited Skill** – Has performed job during training program; additional training is required to develop skill
1 **Unskilled** – Is familiar with process, but is unable to perform job

PROVIDING CARE FOR THE INTRAOPERATIVE AND POST-ANESTHESIA RECOVERY PATIENT

Name ______________________________ Score __________

OBJECTIVE 11

Put on a surgical mask.

INTRODUCTION

The mask is worn over the mouth and nose of the operating room personnel to prevent the personnel from contaminating patients and causing postoperative infections.

EQUIPMENT AND SUPPLIES

- Various types of surgical masks
- Cap
- Surgical scrub suit
- Protective eyewear or goggles

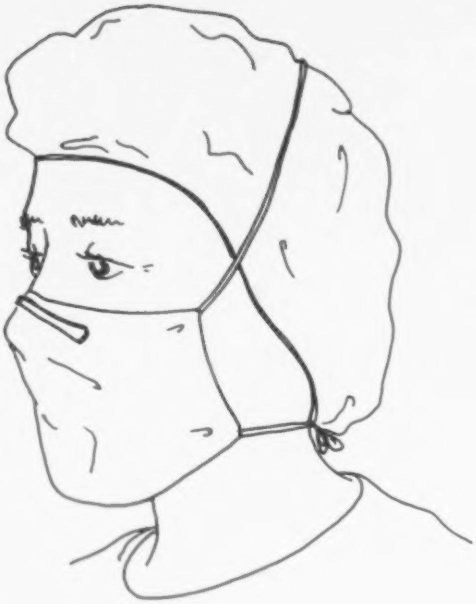
PROCEDURE

Functional Reading Skills
- Follow written instructions

Life Science Skills
- Investigate health issues (medical, ergonomic, nutrition, mental health)

Job Acquisition/ Development Skills
- Master specific job task/procedure
- Practice good work habits/attitudes

	Yes	No
Assessment and Analysis		
1. Evaluate the types of masks available and determine which is most comfortable. The elastic type is placed over the cap, and it fits around the head, above the ears, and over the bridge of the nose. The tie type is tied in a bow over the ears and behind the neck. (The advantage of the elastic type is that it does not loosen during operations. Some claim that the tie type is more comfortable but that it tends to cause glasses and goggles to fog.)	____	____
Planning		
1. Select a mask from the supply box.	____	____
Implementation		
1. Dress in surgical attire and properly position the cap.	____	____
2. Position the mask so that it covers the mouth, nose, and chin. Place the strings or elastic outside the cap.	____	____



	Yes	No
3. The mask must fit snugly.	_____	_____
4. Position the mask until it fits comfortably. The mask is not sterile and therefore cannot be touched after sterile gown and gloves are put on.	_____	_____
5. Change mask between procedures.	_____	_____
6. Discard mask once it is removed from the face and avoid touching it.	_____	_____

Evaluation

1. Verify that the mask fits snugly.	_____	_____

(End of Job Sheet)

SKILL TEST RECORD

EVALUATOR'S COMMENTS

____

____

____

PRODUCT EVALUATION

Evaluator note: Rate the student on the following criteria by circling the appropriate numbers. Each criterion must receive a rating of "3" or higher to demonstrate student mastery. (See Performance Evaluation Key.) A student who is unable to demonstrate mastery should review the material and submit another product for evaluation.

Criteria:

Mask was properly positioned	4	3	2	1
Mask was secure	4	3	2	1
Mask was discarded after use	4	3	2	1

EVALUATOR'S COMMENTS

AVERAGE RATING

Evaluator note: To obtain an average rating for the Competency Profile, total the designated points in "Product Evaluation" and divide by the total number of criteria. Circle the rating on the "Performance Evaluation Key" below.

PERFORMANCE EVALUATION KEY

4 **Skilled** – Can perform job with no additional training
3 **Moderately Skilled** – Has performed job during training program; limited additional training may be required
2 **Limited Skill** – Has performed job during training program; additional training is required to develop skill
1 **Unskilled** – Is familiar with process, but is unable to perform job

JOB
SHEET 3

PROVIDING CARE FOR THE INTRAOPERATIVE AND POST-ANESTHESIA RECOVERY PATIENT

VII

Name ______________________________ Score __________

OBJECTIVE 12

Perform a surgical scrub.

INTRODUCTION

All operating room personnel scrub at the beginning of the day. All sterile intraoperative team members perform hand and arm scrubs for 5-10 minutes before every case. Begin by scrubbing the hands (pointed upward at all times) and then the arms. The scrub must be performed diligently to prevent operating room personnel from infecting patients.

EQUIPMENT AND SUPPLIES

- Simulated scrub sink area with elbow or kneed shut off system
- Special operating room scrub brushes
- A large wall clock
- Surgical attire with mask and goggles properly positioned

PROCEDURE

Functional Reading Skills
- Follow written instructions

Life Science Skills
- Investigate health issues (medical, ergonomic, nutrition, mental health)

Job Acquisition/ Development Skills
- Master specific job task/procedure
- Practice good work habits/attitudes

Assessment and Analysis Yes No

1. Remove all jewelry. _____ _____
2. Adjust mask and goggles. _____ _____

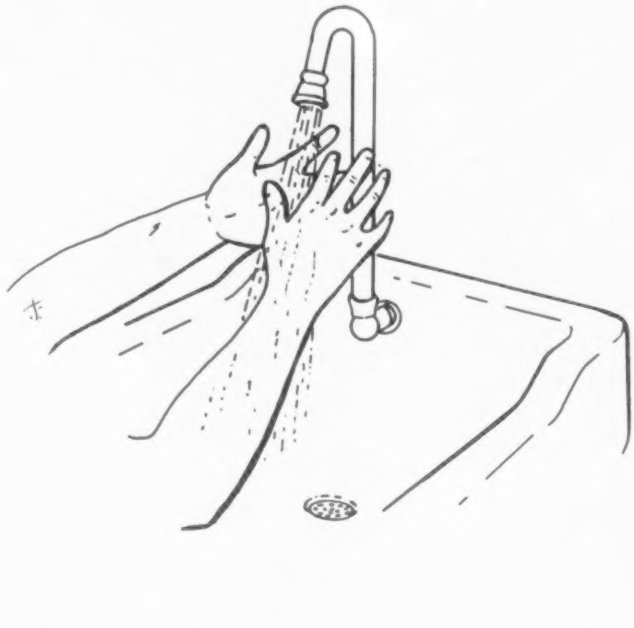
Planning

1. Choose either the stroke or the timed scrub method.
    a. The stroke method consists of a designated number of strokes for each finger, palm, back of hand, and arm. _____ _____
    b. The timed method consists of a designated length of time, usually 7-10 minutes, spent on the entire scrub. _____ _____

Implementation

1. Adjust the water temperature and the flow rate. _____ _____

	Yes	No
2. Open the antimicrobial soap and brush, wet hands, and lather.	____	____
3. Clean nails thoroughly with the orange stick provided in the antimicrobial brush package.	____	____
4. Using friction, start scrubbing the fingertips, and then work to the nails, fingers, palm, and the back of the hand, and up the arm until two inches above the elbow. While scrubbing, always keep hands higher than elbows.	____	____
5. Change arms and repeat the procedure.	____	____
6. After using either the timed or the stroke scrub method, rinse hands and arms by passing them through the water, in one direction only, beginning with the fingers. Allow the water to run down the arm and off the elbow. If part of the body touches the faucet, the body part is contaminated, and the entire scrub process must be repeated.	____	____



	Yes	No
7. Discard the antimicrobial soap brush after rinsing fingers and arms. Use the elbow or preferably the knee control to shut off the water. Back into the door of the operating room, and continue to hold arms out in front of the body with elbows slightly flexed and fingers higher than the elbows.	_____	_____

Evaluation

1. Ensure that the scrub procedure was performed properly.	_____	_____

Documentation

2. Sign the appropriate operating room form at the end of the case.	_____	_____

(End of Job Sheet)

SKILL TEST RECORD

EVALUATOR'S COMMENTS

____

____

____

PRODUCT EVALUATION

Evaluator note: Rate the student on the following criteria by circling the appropriate numbers. Each criterion must receive a rating of "3" or higher to demonstrate student mastery. (See Performance Evaluation Key.) A student who is unable to demonstrate mastery should review the material and submit another product for evaluation.

Criteria:	4	3	2	1
Acceptable scrub to hands and forearms to allow entrance into operating room suite				

EVALUATOR'S COMMENTS

____

____

____

AVERAGE RATING

Evaluator note: To obtain an average rating for the Competency Profile, total the designated points in "Product Evaluation" and divide by the total number of criteria. Circle the rating on the "Performance Evaluation Key" below.

PERFORMANCE EVALUATION KEY

4 **Skilled** – Can perform job with no additional training
3 **Moderately Skilled** – Has performed job during training program; limited additional training may be required
2 **Limited Skill** – Has performed job during training program; additional training is required to develop skill
1 **Unskilled** – Is familiar with process, but is unable to perform job

JOB SHEET 4 — PROVIDING CARE FOR THE INTRAOPERATIVE AND POST-ANESTHESIA RECOVERY PATIENT — VII

Name ______________________________ Score __________

OBJECTIVE 13 **Put on sterile gown and gloves.**

INTRODUCTION

Sterile gowns and gloves prevent the spread of microorganisms from personnel to patients. Gowns protect personnel because they meet the National Fire Protection Safety guidelines, and they prevent liquids from penetrating. Scrub nurses must gown and glove themselves and assist the surgeon with his or her gown and gloves.

EQUIPMENT AND SUPPLIES

- Surgical attire
- Sterile table

PROCEDURE

Functional Reading Skills
- Follow written instructions

Life Science Skills
- Investigate health issues (medical, ergonomic, nutrition, mental health)

Job Acquisition/ Development Skills
- Master specific job task/procedure
- Practice good work habits/attitudes

Assessment and Analysis — Yes — No

1. Ensure that there is a clear access to the operating room. _____ _____

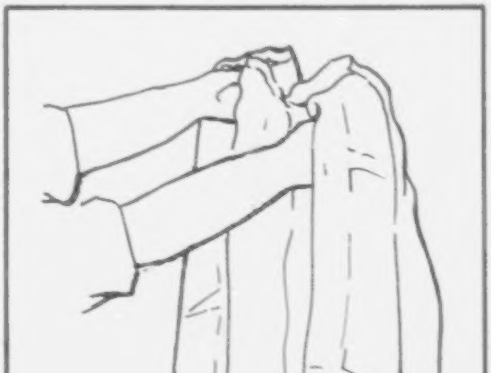
Planning

1. Enter the operating room by backing into the operating room doors, and approach the sterile table. _____ _____
2. To avoid contaminating the sterile table, do not allow water to drip from elbows onto it. _____ _____

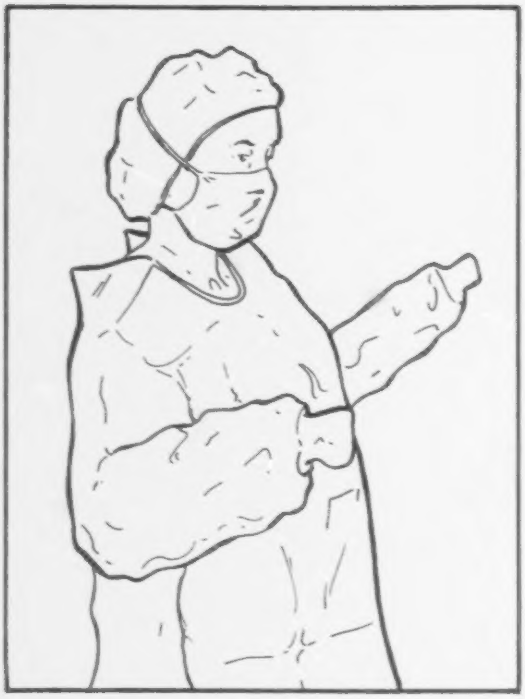
Implementation

1. Locate sterile drying towel. To avoid contaminating the sterile drying towel, do not allow water to drip onto it. Stand away from the table. _____ _____
2. Lean forward, lift the sterile towel from its corner, and hold it out away from the body. _____ _____

	Yes	No
3. While leaning forward, dry one hand at a time. Begin with the small finger, and dry it completely before advancing to the next finger. Never return to a previous finger. Once all of the fingers are dry, move to the palm, the back of the hand, and then work up the arm. Never return to a previous area.	_____	_____
4. While leaning forward, reverse the towel and use the dry sterile side to dry the other hand and arm. When the drying process is completed, without touching the hamper or the floor, drop the towel into the hamper or onto the floor.	_____	_____
5. Gowns are turned inside out before they are packaged so that scrubbed persons may handle them without contaminating the front. Grasp the gown firmly at the neckline, back away from the sterile table, and then allow the gown to unfold completely.	_____	_____



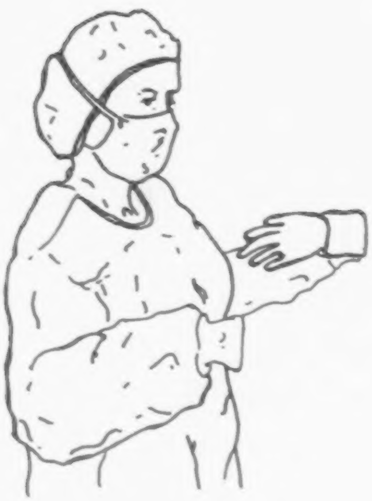
	Yes	No
6. Insert arms into the armholes of the gown, and slip into the gown without touching it with the hands.	_____	_____

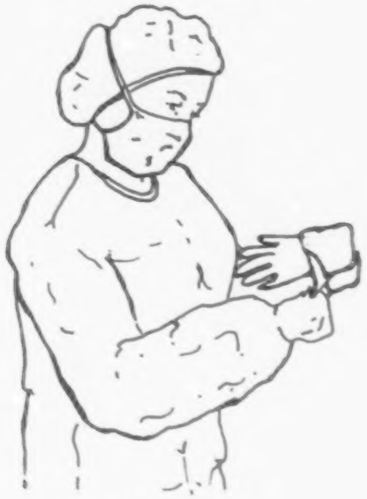


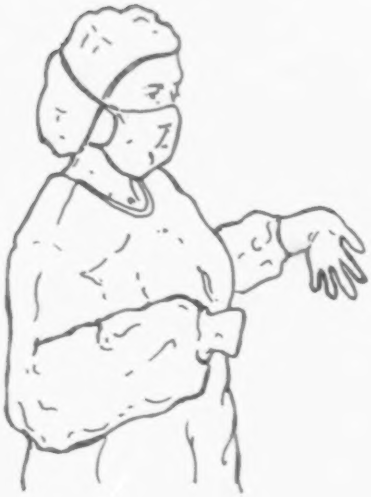
	Yes	No
7. The circulating nurse assists in pulling on the gown by touching the inside of the gown only. If the circulating nurse touches the outside of the gown, the gown is contaminated, and a new sterile gown must be put on.	_____	_____
8. The circulating nurse fastens the velcro at the neck of the gown and ties the strings at the waist.	_____	_____
9. Grasp the folded cuff of the sterile glove.	_____	_____
10. Place glove on hand with fingers of glove pointing toward body.	_____	_____
11. Pull glove over and onto hands and lower forearm, covering cuff on sterile gown.	_____	_____

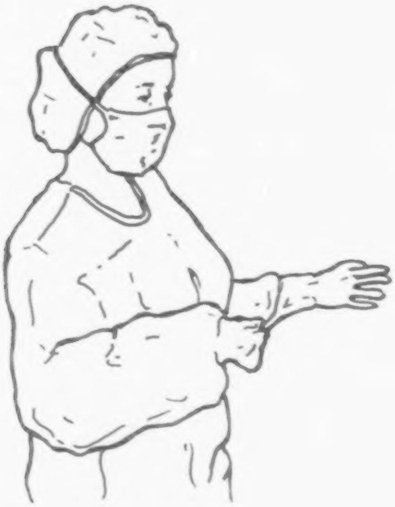
Yes No

12. Place second glove using same procedure. ____ ____









Evaluation

1. Ensure that the gown and gloves were put on without contaminating them. ____ ____

	Yes	No
Documentation		
1. Sign the operating room record.	_____	_____

(End of Job Sheet)

SKILL TEST RECORD

EVALUATOR'S COMMENTS

____

____

____

PRODUCT EVALUATION

Evaluator note: Rate the student on the following criteria by circling the appropriate numbers. Each criterion must receive a rating of "3" or higher to demonstrate student mastery. (See Performance Evaluation Key.) A student who is unable to demonstrate mastery should review the material and submit another product for evaluation.

Criteria:	4	3	2	1
Maintained sterility while gowning and gloving				

EVALUATOR'S COMMENTS

____

____

____

AVERAGE RATING

Evaluator note: To obtain an average rating for the Competency Profile, total the designated points in "Product Evaluation" and divide by the total number of criteria. Circle the rating on the "Performance Evaluation Key" below.

PERFORMANCE EVALUATION KEY

4 **Skilled** – Can perform job with no additional training
3 **Moderately Skilled** – Has performed job during training program; limited additional training may be required
2 **Limited Skill** – Has performed job during training program; additional training is required to develop skill
1 **Unskilled** – Is familiar with process, but is unable to perform job

WRITTEN TEST

PROVIDING CARE FOR THE INTRAOPERATIVE AND POST-ANESTHESIA RECOVERY PATIENT

VII

Name ______________________________ Score ____________

OBJECTIVE 1

Match terms associated with the care of the intraoperative patient to their definitions. Write the correct letters in the blanks.

Part I

_____ 1. The process of clotting

_____ 2. The absence of pathogens

_____ 3. The loss of sensation and protective reflexes over the entire body

_____ 4. The loss of sensation in a specific area

_____ 5. Severed blood vessel

_____ 6. Body temperature below normal

_____ 7. The process of introducing microorganisms to a sterile field

_____ 8. The period of time which begins when a patient enters the operating room

_____ 9. Loss of sensation with or without consciousness

_____ 10. Sterile, absorbent, lint-free material which is used during operations

a. anesthesia

b. asepsis

c. aseptic technique

d. bleeder

e. coagulation

f. contaminate

g. electrocautery

h. general anesthesia

i. hypothermia

j. intraoperative

k. local anesthesia

l. safety strap

m. sterile field

n. suction

o. surgical sponge

May be photocopied for student use.

Part II

_____ 1. Procedure which eliminates pathogens from an object or area

_____ 2. Begins when the patient leaves the operating room and arrives at the recovery room and ends when the patient leaves recovery

_____ 3. Process of reducing the number of microorganisms by washing with chemical antiseptics for a specified length of time

_____ 4. Process of cauterizing by means of electrical current

_____ 5. Used to secure patient on the operating table

_____ 6. Act of drawing up liquid by reducing the air pressure over the surface

_____ 7. Sterile area around the operation site

_____ 8. Presence of pathogens

a. anesthesia
b. aseptic technique
c. contaminate
d. electrocautery
e. hypothermia
f. intraoperative
g. non-sterile
h. post-anesthesia recovery
i. safety strap
j. sterile field
k. suction
l. surgical scrub

OBJECTIVE 2

Select from a list the basic rules of surgical asepsis. Write an "X" in the blank before each true statement.

_____ 1. A tear on the sterile table must be at least 1 inch in diameter for the table to be considered contaminated.

_____ 2. The area between the nipple line and the waist is the only area considered sterile after a scrub.

_____ 3. If a sterile liquid is spilled on a sterile package, the package is still sterile.

_____ 4. When sterile persons cross each other, they must cross front to back.

May be photocopied for student use.

_____ 5. If there is any doubt about the sterility of a person or an object, the person or object is considered unsterile.

_____ 6. Only sterile objects can touch other sterile objects.

_____ 7. Draped objects are considered sterile only on top.

_____ 8. The circulating nurse should put the sterile drapes in place during the surgical procedure.

_____ 9. The operating room staff is encouraged to talk and move during the operation to reduce anxiety.

_____ 10. Once the sterile field is set up, it must be constantly attended.

OBJECTIVE 3

Select from a list restrictive areas of the surgical department. Write an "X" beside all restrictive areas of the surgical department. Write an "O" beside all areas that may be entered without a scrub suit.

_____ 1. Dressing rooms

_____ 2. Holding area

_____ 3. Nursing office

_____ 4. Operating room

_____ 5. Recovery room

_____ 6. Scrub sink area

_____ 7. Sterile hallways

_____ 8. Sterile supply rooms

_____ 9. Sub-sterile supply rooms

May be photocopied for student use.

OBJECTIVE 4

List the appropriate surgical attire for operating room personnel. List below what would be appropriate surgical attire for a *scrub nurse* entering the operating room.

____

____

____

____

____

____

____

____

____

____

OBJECTIVE 5

Distinguish between responsibilities of sterile and clean personnel. For each responsibility, decide whether it should be carried out by a sterile or clean team member. In the blanks, mark an "S" for sterile or a "C" for clean.

_____ 1. Adjusts lights before procedure begins

_____ 2. Administers the anesthesia and monitors patient's condition during the procedure

_____ 3. Anticipates surgical needs and passes instruments during the case

_____ 4. Assists the surgeon during procedure

_____ 5. Assists the anesthesiologist

_____ 6. Assists the surgeon in gowning and gloving

_____ 7. Attaches grounding device to patient

_____ 8. Communicates with the patient's family members, other doctors, pathologist, and other hospital personnel during the procedure

May be photocopied for student use.

_____ 9. Connects suction tubing from the sterile field to the suction containers and maintains them throughout the procedure

_____ 10. Coordinates all activities in the operating room

_____ 11. Creates and maintains a safe environment for patients by preserving sterility, adjusting room temperature, and adjusting the humidity

_____ 12. Documents and charts

_____ 13. Handles all non-sterile equipment

_____ 14. May take x rays during procedure

_____ 15. Opens sterile packages during the procedure

_____ 16. Participates in the instrument, sponge, and needle count

_____ 17. Performs the surgical procedure

_____ 18. Performs shave prep and sterile scrub prep

_____ 19. Plugs drill and saw cords into electrical outlets

_____ 20. Positions patient after induction

_____ 21. Preserves all specimens

_____ 22. Sterilizes supplies for the procedure

_____ 23. Ties the gowns of scrub nurse and surgeon

OBJECTIVE 6

Select the word or phrase that completes statements concerning the classifications of anesthetics. The following statements concern the classification of anesthetics. Write the correct letters in the blanks.

_____ 1. Epidural anesthesia is

a. injected into the dura mater without entering the spinal fluid
b. directed into the caudal space in the sacrum area
c. applied directly to the skin
d. administered into the specific area around the incision

May be photocopied for student use.

_____ 2. Spinal, caudal, local, and epidural blocks are examples of

a. intravenous anesthesia
b. inhalational anesthesia
c. regional anesthesia
d. general anesthesia

_____ 3. The E-T tube may be positioned after the body has been paralyzed by

a. inhalational anesthesia
b. intravenous anesthesia
c. local block
d. caudal block

OBJECTIVE 7 **Arrange in order the stages of general anesthesia.** Number the four stages of general anesthesia in the order of occurrence.

_______ induction

_______ danger

_______ excitement

_______ relaxation

OBJECTIVE 8 **Select from a list basic safety precautions.** Write an "X" in the blank before each true statement.

_____ 1. Avoid stopping the stretcher abruptly or bumping it into walls.

_____ 2. Provide extra blankets.

_____ 3. Keep the wheels of the stretcher locked when transferring patient from the stretcher to the operating room table.

_____ 4. Avoid hyperextension of patient's arms on the arm board.

_____ 5. Provide extra padding to the elbows and heels of the patient to prevent nerve damage.

_____ 6. Check patient's allergies.

May be photocopied for student use.

_____ 7. Always pull side rails up.

_____ 8. Place preparation solution under patient when possible.

_____ 9. Count needles and sponges only if time permits.

OBJECTIVE 9

Select true statements about immediate post-anesthesia/recovery room care. Write an "X" in the blank before each true statement.

_____ 1. The surgeon and the scrub nurse accompany patient to the recovery room.

_____ 2. The first concern in the recovery room is to ensure that the patient has an open airway.

_____ 3. Drain sites and dressings should be checked.

_____ 4. Apply preparation solution.

_____ 5. Position patients in the Trendelenburg position because it prevents aspiration if they become nauseated and begin vomiting.

_____ 6. Remove sutures or staples.

NOTE: Objectives 10-13 are evaluated on job sheets in this unit. If you have not completed these components, see your instructor.

May be photocopied for student use

OBJECTIVE 1

Part I

1.	e	6.	i
2.	b	7.	f
3.	h	8.	j
4.	k	9.	a
5.	d	10.	o

Part II

1.	b	6.	k
2.	h	7.	j
3.	l	8.	g
4.	d		
5.	i		

OBJECTIVE 2

2, 5, 6, 7, 10

OBJECTIVE 3

1.	O	6.	X
2.	O	7.	X
3.	O	8.	X
4.	X	9.	X
5.	X		

OBJECTIVE 4

- Scrub suit – top, pants (usually with ankle closure), disposable shoe protectors, and a disposable cap and mask
- protective goggles
- sterile gown and gloves
- no jewelry
- short fingernails with no nail polish

OBJECTIVE 5

1. c
2. c
3. s
4. s
5. c
6. s
7. c
8. c
9. c
10. c
11. c
12. c
13. c
14. c
15. c
16. s, c
17. s
18. c
19. c
20. c
21. c
22. s
23. c

OBJECTIVE 6

1. a
2. c
3. a

OBJECTIVE 7

induction (1), danger (4), excitement (2), relaxation (3)

OBJECTIVE 8

1, 2, 3, 4, 5, 6, 7

OBJECTIVE 9

2, 3

OBJECTIVE SHEET

PROVIDING CARE FOR THE POSTOPERATIVE PATIENT

VIII

INTRODUCTION

The operation is over, and the patient's life depends upon the knowledge and caring attitudes of the postoperative nursing staff. For at least the first few hours after surgery, the patient is dependent upon the nurses for all basic needs. The surgeon is important, but the recovery depends a great deal upon the quality of nursing care during the postoperative period.

The patient will have many needs, both physical and psychological. The postoperative care nurses must respect the patient and provide empathy and compassion. Good postoperative nursing care can make the difference between the patient going home on the third postoperative day or developing a complication such as pneumonia or blood clots and remaining in the hospital for weeks.

UNIT OBJECTIVE

After completing this unit, the student will be able to provide care to the postoperative patient and perform common postoperative procedures. The student will demonstrate these competencies by completing the assignment sheets, job sheets, and written test with a minimum of 85 percent accuracy.

PREREQUISITES

Nursing Principles and Skills
Nursing Concepts
Body Structure and Function
"Applying Basic Principles of Medical-Surgical Care"
"Providing Care for the Patient with Pain"
"Providing Care for the Preoperative Patient"
"Providing Care for the Intraoperative and Post-Anesthesia Recovery Patient"

SPECIFIC OBJECTIVES

After completing this unit, the student will be able to:

1. Match terms associated with the care of the postoperative patient to their correct definitions.

2. Select appropriate assessments and care for postsurgical patients upon returning to their unit.

3. Match common postoperative complications with appropriate interventions.

4. Discuss factors affecting surgical wound healing.

5. Select appropriate guidelines for surgical wound care.

6. Select the word or phrase that completes statements about the types of drains and drainage.

7. Select true statements about dehiscence and evisceration.

8. List the purposes of urinary catheterization.

9. Select the word or phrase that completes statements about the care of urinary catheterization.

10. List purposes of nasogastric tubes.

11. Select true statements about the care of nasogastric tubes.

12. Choose indications for intermittent and constant suction.

13. List the purposes of colon tubes.

14. Select true statements about the care of colon tubes.

15. Select true statements about the assessments requiring documentation during postoperative care.

16. Develop a patient's discharge teaching plan. (Assignment Sheet 1)

17. Write a postoperative patient plan of care. (Assignment Sheet 2)

18. Prepare a post-surgical unit. (Job Sheet 1)

19. Perform a urinary catheterization—female patient. (Job Sheet 2)

20. Perform a urinary catheterization—male patient. (Job Sheet 3)

21. Apply the principles of sterile technique in dressing changes. (Job Sheet 4)

22. Care for the patient with plastic suction devices. (Job Sheet 5)

23. Remove surgical sutures. (Job Sheet 6)

24. Remove surgical staples. (Job Sheet 7)

25. Care for a patient's deep wound. (Job Sheet 8)

26. Insert a nasogastric tube. (Job Sheet 9)

27. Irrigate a nasogastric tube. (Job Sheet 10)

28. Provide nursing care for the patient with a nasogastric tube. (Job Sheet 11)

29. Insert a colon/rectal tube. (Job Sheet 12)

PROVIDING CARE FOR THE POSTOPERATIVE PATIENT

PREPARATION

- Review the unit and plan your presentation.

- Determine the scope and sequence of objectives you add. Design and develop support materials, including evaluation techniques for additional objectives.

- Review teaching suggestions and plan classroom activities.

- Determine how you will schedule time for students to demonstrate competence in the required procedures.

- Order materials to supplement the unit.

- Order films and videos.

- Invite a guest speaker to discuss medical-surgical care.

  NOTE: Please provide the guest speaker with the specific topic relevant to the unit of instruction ahead of time. You may want to supply the objective sheet, information sheet, and any other components you want the speaker to cover. Confirm the scheduled appearance two to three days prior to the presentation.

- Make a poster illustrating postoperative care in words and/or pictures.

- Arrange for a tour of a postsurgical unit.

- Arrange for a postoperative charge nurse from a local hospital to speak to students.

- Have students create a children's coloring book to help pediatric patients.

HOSA Integration

- Have students complete HOSA competitive skills.

- Have students prepare a three-minute speech on the importance of postoperative teachings according to HOSA guidelines.

- Have students choose a partner and complete a patient-teaching exercise for various surgeries.
- Have students prepare posters on postoperative safety.

DELIVERY

- Discuss unit and specific objectives.
- Encourage students to use computer software, if computers are available.
- Devise games and/or crossword puzzles to reinforce terms.

Objective 1: Match terms associated with the care of the postoperative patient to their correct definitions.

- Discuss terms and definitions of postoperative nursing.
- Show *Preoperative and Postoperative Care.*
- Play games and work puzzles.

Objective 2: Select appropriate assessments and care for postsurgical patients upon returning to their unit.

- Have students arrange a postoperative room in the lab area for several types of surgeries.
- Have students perform skits on safety in the postoperative area.
- Have students complete Job Sheet 1.

Objective 3: Match common postoperative complications with appropriate interventions.

- Have each student choose a partner and role-play different complications and interventions.
- Have the students patient-teach their partners the rationale of their interventions.

Objective 4: Discuss factors affecting surgical wound healing.

- Have students draw posters concerning factors of surgical wound healing.

Objective 5: Select appropriate guidelines for surgical wound care.

- Have students complete Job Sheets 4 and 8.

- Show *Surgical Wound Care.*

Objective 6: Select the word or phrase that completes statements about the types of drains and drainage.

- Place several types of drains on a table and ask students to identify them.

- Have students complete Job Sheet 5.

- Simulate types of drainage on gauze dressings.

  Example: A brownish solution, such as weak betadine, can represent clostridia; food coloring can represent pseudomonas; salad dressing with a tiny bit of pink food coloring can represent staphlacoccus.

- Ask students to identify the types of drainage.

- Have students practice how to estimate amounts of drainage on dressings and how to chart their findings.

- Have students practice obtaining cultures.

Objective 7: Select true statements about dehiscence and evisceration.

- Have a post-surgical nurse from a local hospital give a presentation concerning common surgical complications.

Objective 8: List the purposes of urinary catheterization.

- Allow students time to practice catheterization skills on a mannikin in the lab area.

- Have students complete Job Sheets 2 and 3.

Objective 9: Select the word or phrase that completes statements about the care of urinary catheterization.

- Show *Urinary Catheterization.*

- Demonstrate the correct use of catheters.

Objective 10: List purposes of nasogastric tubes.

- Show *Nasogastric Intubation.*
- Allow time for students to practice on mannequin in lab area.
- Have students complete Job Sheets 9 and 10.

Objective 11: Select true statements about the care of nasogastric tubes.

- Show a video on the care of NG tubes.
- Have students place NG tubes in mannequins in the lab area.
- Have students complete Job Sheet 11.

Objective 12: Choose indications for intermittent and constant suction.

- Arrange for students to view a demonstration on intermittent and constant suction in the lab or at the local hospital. Inform students that rural hospitals still have portable suction machines, whereas urban hospitals have suction machines attached to the wall.

Objective 13: List the purposes of colon tubes.

- Discuss purposes of colon tubes.
- Allow students time to practice purpose and care of colon tubes in lab area.

Objective 14: Select true statements about the care of colon tubes.

- Demonstrate colon tube placement on a mannequin.
- Show video on colon tube placement, if available.
- Discuss care of colon tubes.
- Have students complete Job Sheet 12.

Objective 15: Select true statements about the assessments requiring documentation during postoperative care.

- Have students simulate various postoperative situations and have their partners assess and document findings.
- Complete Assignment Sheets 1 and 2.

Objective 16: Develop a patient's discharge teaching plan.

- Use Assignment Sheet 1 to give students hand-on experience developing a patient's discharge teaching plan.

Objective 17: Write a postoperative patient plan of care.

- Use Assignment Sheet 2 to give students hand-on experience writing a postoperative patient plan of care.

Objective 18: Prepare a post-surgical unit.

- Use Job Sheet 1 to give students hands-on experience preparing a post-surgical unit.

Objective 19: Perform a urinary catherterization—female patient.

- Use Job Sheet 2 to give students hands-on experience performing a urinary catheterization—female patient.

Objective 20: Perform a urinary catherterization—male patient.

- Use Job Sheet 3 to give students hands-on experience performing a urinary catheterization—male patient.

Objective 21: Apply the principles of sterile technique in dressing changes.

- Use Job Sheet 4 to give students hands-on experience applying the principles of sterile technique in dressing changes.

Objective 22: Care for the patient with plastic suction devices.

- Use Job Sheet 5 to give students hands-on experience caring for the patient with plastic suction devices.

Objective 23: Remove surgical sutures.

- Use Job Sheet 6 to give students hands-on experience removing surgical sutures.

Objective 24: Remove surgical staples.

- Use Job Sheet 7 to give students hands-on experience removing surgical staples.

Objective 25: Care for a patient's deep wound.

- Use Job Sheet 8 to give students hands-on experience caring for a patient's deep wound.

Objective 26: Insert a nasogastric tube.

- Use Job Sheet 9 to give students hands-on experience inserting a nasogastric tube.

Objective 27: Irrigate a nasogastric tube.

- Use Job Sheet 10 to give students hands-on experience irrigating a nasogastric tube.

Objective 28: Provide nursing care for the patient with a nasogastric tube.

- Use Job Sheet 11 to give students hands-on experience providing care for the patient with a nasogastric tube.

Objective 29: Insert a colon/rectal tube.

- Use Job Sheet 12 to give students hands-on experience inserting a colon/rectal tube.

EVALUATION

Pretest

- Give written test as pretest.
- Determine individual study requirements from pretest results.
- Counsel students individually on pretest results and study requirements.
- Modify materials in unit or create supplementary materials for individual students as required.

Skill Test

- Evaluate students on assignment sheet and job sheet activities if not previously done.
- Complete appropriate section of competency profiles.
- Reteach and reevaluate if necessary.
- Review individual and group performance in order to evaluate teaching methods. Adjust scope, sequence, or instructional approaches for additional lessons as required.

Written Test

- Explain to students that they will be asked to demonstrate on the written test actions listed in the specific objectives.
- Evaluate students on assignment sheet activities if not previously done.
- Give the written test.

  NOTE: The written test may be given in sections if desired.
- Complete appropriate sections of competency profiles.
- Reteach and retest if necessary.
- Review individual and group performance in order to evaluate teaching methods. Adjust scope, sequence, or instructional approaches for additional lessons as required.

SUGGESTED RESOURCES

Electronic Media

- *Nasogastric Intubation* (VHS, 24 min.)
- *Preoperative and Postoperative Care* (VHS, 36 min.)
- *Surgical Wound Care* (VHS, 24 min.)
- *Urinary Catheterization* (VHS, 24 min.)

The above videos are available from:

Medcom, Inc.
12601 Industry Street
Garden Grove, CA 92642
(800) 877-1443

Print Media

- Belland, Kathleeh H. and Mary Ann Wells. *Clinical Nursing Procedures*. Wadsworth Health Science Division: Belmont, CA, 1984.
- Brunner, Lillian and Doris Suddarth. *The Lippincott Manual of Nursing Practice*. CV Mosby Co.: St. Louis, 1987.
- Brunner, Lillian and Doris Suddarth. *Textbook of Medical-Surgical Nursing* (6th ed.). CV Mosby Co.: St. Louis, 1988.
- Erb, Glenora and Barbara Kozier. *Techniques in Clinical Nursing*. Addison Wesley Publishing: Redding, MA, 1984.
- Fuller, Joanna. *Surgical Technology Principles and Practice*. W.B. Saunders Co.: Philadelphia, 1981.
- Long, Barbara, Wilma Phipps, and Nancy Woods. *Medical Surgical Nursing Concepts and Clinical Practice*. CV Mosby Co.: St. Louis, 1987.
- Rambo, Beverly J. and Lucille A. Woods. *Nursing Skills for Clinical Practice*. W.B. Saunders: Philadelphia, 1982.
- Reid, Jamie. *Practical Nursing Curriculum*. Oklahoma Department of Vocational and Technical Education, Curriculum and Instructional Materials Center: Stillwater, OK, 1983.
- Thomas, Clayton L. *Tabers Cyclopedia Medical Dictionary* (14th ed.). F.A. Davis Co.: Philadelphia, 1981.

UNIT REFERENCES

- Belland, Kathleen H. and Mary Ann Wells. *Clinical Nursing Procedures*. Wadsworth Health Science Division: Belmont, CA, 1984.
- Brunner, Lillian and Doris Suddarth. *The Lippincott Manual of Nursing Practice*. CV Mosby Co.: St. Louis, 1987.
- Brunner, Lillian and Doris Suddarth. *Textbook of Medical-Surgical Nursing* (6th ed.). CV Mosby Co.: St. Louis, 1988.
- Erb, Glenora and Barbara Kozier. *Techniques in Clinical Nursing*. Addison Wesley Publishing: Redding, MA, 1982.
- Long, Barbara, Wilma Phipps, and Nancy Woods. *Medical Surgical Nursing Concepts and Clinical Practice*. CV Mosby Co.: St. Louis, 1987.
- Rambo, Beverly J. and Lucille A. Woods. *Nursing Skills for Clinical Practice*. W.B. Saunders: Philadelphia, 1982.
- Reid, Jamie. *Practical Nursing Curriculum*. Oklahoma Department of Vocational and Technical Education, Curriculum and Instructional Materials Center: Stillwater, OK, 1983.
- Thomas, Clayton L. *Tabers Cyclopedia Medical Dictionary* (14th ed.). F.A. Davis Co.: Philadelphia, 1981.

OBJECTIVE 1

Match terms associated with the care of the postoperative patient to their correct definitions.

- **aseptic** – sterile, free from germs
- **atelectasis** – a collapsed alveoli that could be caused by secretions in the airway
- **conscious** – being awake and aware of surroundings
- **distended** – to be inflated with air or fluid
- **embolus** – undissolved material (usually a clot) in the bloodstream that travels through the circulatory system
- **emesis** – vomiting
- **evisceration** – abdominal contents emerging from an incision after surgery
- **flatus** – gas in the digestive system
- **hemorrhage** – excessive internal or external bleeding
- **nasogastric** – relating to the connection between the nose and stomach
- **pneumonia** – inflammation or infection of the lungs
- **postoperative** – after or following surgery
- **seropurulent** – drainage consisting of serum and pus
- **shock** – inadequate blood flow that cannot supply oxygen to tissues

OBJECTIVE 2

Select appropriate assessments and care for postsurgical patients upon returning to their unit.

After patients have met the criteria for discharge from the recovery room, they are taken to their own hospital room. In their unit, postoperative surgical nurses take over the care of the patient until discharged or transferred to an extended care facility.

Room Preparation

Before returning a patient to the room, it should be prepared for the patient's needs.

- Place an IV monitor near the bed or make sure an IV pole is connected to the bed.
- Correctly place equipment for NG tube drainage.
- Correctly place equipment for chest tube drainage, if needed.
- Make an emesis basin available.
- Clear the area around the bed of any unnecessary items. The surgical carrier will be brought to the room and positioned next to the patient's bed to provide a safe and efficient transfer of the patient.
- Prepare the postsurgical bed by folding all linens to the bottom of the bed or by fan-folding them to the side of the bed opposite the side the surgical carrier will use.

Assessments

After transferring the patient from the surgical carrier to the postsurgical bed, the surgical unit nurse should receive a report from the recovery room nurse concerning the status and condition of the patient. Then the surgical unit nurse should perform the following patient assessments:

Respiratory assessment

- Check patency of the patient's airway.
- Observe the patient's respirations for normal rate, depth, and character. After surgery, many patients' respiratory functions are altered. The patient may have decreased respirations due to pain or medication.

- Auscultate lungs for equal aeration and abnormal sounds, such as rales, indicating fluid in the lungs.
- As soon as possible, encourage the patient to deep breath and cough to loosen and dislodge secretions or mucous.
- Teach the patient how to splint the incision area with pillows while coughing.

Circulatory assessment

- Check the pulse rate and blood pressure. Adequate circulation insures all tissue and organs are oxygenated.
- Assess the patient's pulse rate and quality. A weak, rapid pulse may indicate hemorrhage or shock. A rapid pulse may be due to pain.
- Assess the patient's blood pressure. Blood pressure may be elevated due to pain or the patient's feelings of anxiety. Decreased blood pressure may indicate shock or hemorrhage.
- Take the patient's temperature. Sometimes the patient's temperature is low just after surgery.

  After surgery, the patient's temperature has a tendency to elevate slightly during the first 24 hours. This is a normal stress reaction, but continue to assess for a further increase in temperature over the next few days. The following patterns in elevated temperatures could indicate infection:

  - An elevation in temperature after 24 hours usually indicates pulmonary infection.
  - An elevation in temperature after 48 hours usually indicates a urinary tract infection.
  - An elevation in temperature after 72 hours usually indicates a wound infection.
- Continue assessing vital signs frequently during the first six-eight hours following surgery.

Neurological assessment

- Assess the patient's neurological status by evaluating the patient's ability to respond to verbal and tactile stimuli. This assessment should help the nurse evaluate the patient's level of consciousness (LOC). A decreased level of consciousness could be from pain medication received in the recovery room, or it could indicate serious complications, such as shock.

  NOTE: If spinal or epidural anesthesia was used during the surgery, assess the patient for sensation in the lower extremities. Explain to the patient that it could take several hours for feeling to return after spinal or epidural anesthesia, as many patients feel that they may be permanently paralyzed.

Urological Assessment

- Assess elimination status.
- Assess patterns of voiding, such as frequency (voiding small amounts of urine frequently), which may indicate urinary retention or infection.
- Palpate for patient's bladder to assess for distention, and monitor urine output closely.
- Assess the amount of urinary output. Urine output of at least 30cc/hr is expected to maintain proper kidney function.

  NOTE: Many times after rectal, perineal, lumbar, vaginal, and some abdominal surgeries, patients experience difficulty urinating. But a well-hydrated patient should eliminate urine six to eight hours after surgery.

Assessment of IV fluids

- Assess for correct IV rate.
- Assess for correct solution.
- Assess for patency of IV.
- Assess and maintain IV tubing and filters according to hospital policy.

- IV solutions infused at an increased rate (without need) may place the patient in danger of congestive heart failure. IV solutions infused too slowly may lead to dehydration in some patients.

Assessment of dressings and drainage

- Check the color and volume of drainage from NG tubes, Foley catheter, chest tube, hemovac drain, Jackson Pratt drain, or Penrose drain.

- Check dressings for drainage. Some hospitals allow nurses to change the patient's dressings immediately postoperatively, but most recommend that the nurse reinforce the patient's dressing. The doctor may complete the first dressing change.

- Check under the patient to assess for bleeding and drainage, such as after a thyroidectomy. Often bleeding from the incision drains from under the dressing and pools under the patient. In this case, the dressing will often appear dry and intact from the front.

- Assess cast for any drainage and circle the amount and write time and date, according to surgeon's policy. The circle and date allow the nurses on the following shift to see exactly the amount of drainage present.

Assessment of patient comfort

After the general anesthesia has worn off, the patient will have mild, moderate, or severe pain, depending on the surgical procedure and the patient's pain tolerance. Many times the recovery room nurses choose not to sedate the patient, but they allow surgical floor nurses to assess the patient and then administer pain medication. Again, this will depend on hospital policy. Pain can create many problems, such as hypertension and tachycardia. Patients may be less cooperative with activity and procedure if they are in pain.

- Decrease the patient's pain by correct positioning. Many times turning and repositioning a patient with pillows will help alleviate pain.

- Assess for pain, asking the patient to rate the pain level. Medicate as needed.

  NOTE: Recent studies show many patients are undermedicated.

- Reassure the patient that taking narcotics after surgery will not lead to addiction.
- Assess the patient for nausea and vomiting, and medicate as needed.
- Assess patient for temperature control level.
- Provide the patient with extra blankets for the first few hours after surgery to keep the patient warm and reduce shivering.

Assessment for safety

Safety is very important during the first 24 hours after surgery. Patients may have altered level of consciousness due to pain medication and should be observed closely. Assess that

- bed is in low position with side rails raised to prevent falls
- call light button is within the patient's reach
- patient is not smoking, especially while using pain medication or oxygen
- patient's room is clean and tidy with any spills wiped up immediately

OBJECTIVE 3 **Match common postoperative complications with appropriate interventions.**

RESPIRATORY COMPLICATIONS

Respiratory complications are most common in patients who smoke, are immobile, or have pain that restricts deep-breathing.

The two most common postoperative respiratory complications are *atelectasis* and *pneumonia*.

Interventions

- Encourage deep-breathing exercises every two hours. Deep breathing pushes air deep into alveoli, helping to eliminate pneumonia or atelectasis.

  NOTE: Yawning has been shown to prevent atelectasis.

- Ensure all orders for respiratory treatments are implemented, such as incentive spirometers and updrafts.

- Stimulate the patient to cough. A cough is often stimulated by having the patient deep-breathe. Coughing is important to help remove secretions that could lead to an infection.

  NOTE: Check hospital policy. Some surgeons prefer patients not cough after surgery, especially after a thyroidectomy.

- Teach the patient how to splint the incision by holding a pillow or folded towel over the incision during coughing. Splinting will usually help reduce pain during the cough.

- Turn the patient every two hours, and always position the patient correctly. Turning the patient improves the aeration of lungs and prevents secretions from pooling in alveoli.

THROMBOPHLEBITIS

Blood clots develop from many causes, but venous stasis from decreased mobility is most common after many surgeries. Another reason for clotting is hypercoagulation due to dehydration.

Usually blood clots form in the lower extremities and adhere to the wall of a vein or travel in circulation to the pulmonary area. These types of clots are called pulmonary emboli and are very dangerous.

Signs of thrombophlebitis are pain and local tenderness, usually in the calf of the leg. The patient may also exhibit positive Homans' sign (pain upon dorsiflexion of foot). Superficial veins in the area may be red and warm to the touch, with a positive Homans' sign. Reduced circulation in the deeper veins could cause the patient's legs to be cold and pale.

Interventions

- Antiembolitic hose many be placed before surgery to increase blood flow to the heart and decrease pooling of blood in the extremities.

- Increase the patient's mobility as soon as possible postoperatively. Most surgeons will order patients mobile the same day as the surgery, but the patient's mobility will depend upon the type of surgery.

- Elevate the patient's legs when the patient is in a sitting position. Do not allow the patient to sit for long periods of time.

- Do not allow pillows under the patient's knees postoperatively, as this promotes venous stasis.

- Never massage a patient's legs after surgery.

- Encourage the patient to move her/his legs up and down while in bed to increase venous return.

- Administer anticoagulant therapy as prescribed.

- Enforce strict bedrest if the patient develops thrombophlebitis.

ABDOMINAL DISTENTION

Abdominal distention is a common postoperative complication. It results from an accumulation of gas in the patient's intestines.

Interventions

- Encourage ambulation.

- If ambulation is not allowed, turn the patient frequently.

- Insert a rectal tube if ordered. Rectal tubes can be left in place up to 20 minutes at a time and can be inserted every four hours.

  NOTE: Rectal tubes are not used as often today as in the past. Many anti-flatus drugs are available to accomplish the same intervention. Do not administer a rectal tube or anti-flatus drug unless ordered by the doctor.

- Administer a Harris flush if ordered by the doctor. A Harris flush is similar to an enema. After instilling the solution, the container is lowered, and as fluid flows back into the container, so does flatus.

- Insert an NG tube to withdraw gas and fluids if ordered by doctor. An NG tube may be used to relieve patient's abdominal distention in severe cases.

HICCOUGH

One possible cause of hiccups is spasms of the diaphragm. Diaphragmatic spasms may be caused by a distended abdomen, irritation from a drainage tube, or drinking cold or hot liquids. Hiccoughs may lead to discomfort and dehiscense after surgery.

Interventions

- Encourage the patient to avoid hot and cold liquids.

- Encourage the patient to hold his/her breath while taking a large swallow of water.

- Administer medications to alleviate severe hiccoughs if ordered.

- Insert an NG tube if ordered.

VOMITING

Vomiting is dangerous after surgery because it can lead to dehydration and electrolyte imbalance and often causes stress on the incision.

Interventions

- Position the patient on his/her side to drain vomitus and prevent aspiration.

- NPO the patient.

- Offer ice chips for the patient.

- Administer an antiemetic.

- Closely observe the time of occurrence of any N/V. The patient's N/V may be associated with administration of pain medication. Some narcotics tend to make patients nauseated.

- Keep an accurate I and O record to avoid dehydration.

URINARY RETENTION

Urinary retention is the inability to urinate. It is common after perineal, anal, vaginal, lumbar, and some abdominal surgeries. A patient should void within six to eight hours after surgery.

Interventions

- Run water in the sink in the patient's room. Often the sound of running water will induce urination.

- Place the patient's hand in a bowl of warm water. Often the sensation of warm water on certain areas of the skin will induce urination.

- Pour warm water over the patient's genitals after placing patient on a bedpan. Often the sensation of warm water on certain areas of the skin will induce urination.

- Assist patient to stand at bedside to use urinal.

- Insert a straight catheter or a Foley catheter if ordered.

CONSTIPATION

The patient may complain of constipation after surgery, but the patient should be told that peristalsis is absent for approximately 24 hours following pelvic and abdominal surgeries and may be absent for two to three days following stomach and colon surgeries. The first sign that peristalsis is returning is presence of bowel sounds.

Interventions

- When the patient is able to consume foods, provide fluids, especially prune juice.

- Administer stool softeners for patient's recovering from rectal surgery, but only if ordered by doctor. Some patients may fear the pain of defecation following rectal surgery.

- Increase the patient's activity level and encourage ambulation to induce peristalsis.

- Initiate bathroom privileges as soon as possible.

- Administer a mild laxative on doctor's orders.

- Administer an enema, if ordered by doctor.

DRY MOUTH

Usually a patient's first complaint after surgery is a dry mouth. One reason for this complaint is the medication used during the operation to dry secretions.

Interventions

- Administer oral care. Dip an oral sponge into cool water and swab the interior of the patient's mouth.

- Use a wet cloth to moisten the patient's lips and mouth.

- Allow an alert patient to swish cool water in her/his mouth and spit it out. Do this only on doctor's orders as many patients commonly swallow the water.

- Allow an alert patient to suck on hard candies or chew gum if the doctor approves.

PAIN

Pain is a subjective symptom in which the patient often becomes distressed. Maximum postoperative pain usually occurs 12-36 hours after surgery. Signs and symptoms of acute pain include

- Elevated blood pressure
- Increased pulse
- Rapid respirations
- Guarding
- Irritability
- Anxiety
- Decreased attention span
- Restlessness
- Verbal complaints of pain

Interventions

- Adjust the temperature in the patient's room to help the patient feel comfortable.
- Provide the patient with extra blankets to relieve chills.
- Discourage frequent visitors to the patient's room during the first day postoperatively.
- Loosen any constrictive dressings. Do not loosen pressure dressings.
- Reposition the patient every two hours, and splint incision with pillows or folded towels.
- Assess the patient's bladder function. Commonly, a distended bladder will cause severe pain by pressing on an incision area.
- Provide the patient with appropriate emotional support.
- Encourage patient to rate pain.
- Administer pain medication as prescribed by doctor.
- Administer transcutaneous electrical nerve stimulation (TENS unit) as ordered.

- Provide IV PCA, if ordered by doctor.

SHOCK

Shock results from a circulatory depression leads to inadequate blood supply to vital tissues and organs. The symptoms of shock can include

- Pale, clammy skin
- Increased respirations
- Low blood pressure
- Apprehension
- Mental confusion
- Coma

Interventions

- Keep the patient's airway open.
- Administer oxygen.
- Elevate the patient's legs, keeping them straight.
- Increase patient's IV infusion temporarily.
- Cover patient with a blanket.

HEMORRHAGE

Hemorrhage is a severe loss of blood. Hemorrhage can be evident as external bleeding or be hidden as internal bleeding. Hemorrhage can occur immediately or a few hours after surgery. The symptoms indicating hemorrhage include

- Restlessness
- Excessive thirst
- Cool, pale skin
- Increased pulse
- Increased respirations

- Decreased blood pressure
- Visible hemorrhage

Interventions

- Initiate interventions for shock.
- Apply a pressure dressing over the bleeder.

  NOTE: Hemorrhage is most likely to occur during the 48 hours immediately following surgery.

WOUND INFECTIONS

The patient's incisions may become infected from the growth of various types of bacteria in the wound. Various bacteria have different infection times. Symptoms of a wound infection include

- Redness in and around the incision
- Swelling of tissue and heat around the incision
- Tenderness to touch at the incision site
- Seropurulent drainage from the incision area
- Foul-smelling drainage
- Fever
- Increased pulse
- Increased WBC

Interventions

- Use aseptic technique when changing the patient's dressings.
- Culture the patient's wound to determine the bacteria causing the infection.
- Irrigate the wound, using sterile NSS as an irrigant.
- Assist in inserting a Penrose drain, if ordered.
- Administer antibiotics as ordered.

OBJECTIVE 4 Discuss factors affecting surgical wound healing.

Many factors have been identified that promote or delay wound healing. The nurse should be aware of these factors and how to use or avoid them to help the patient heal as quickly as possible.

Wound-Healing Factors

- **Age** – The patient's age can make a difference in healing. Generally, children heal more rapidly than adults, and elderly patients may heal very slowly. Healing is influenced by pulmonary circulation. Circulation is generally better in younger people than in the elderly.
- **Nutrition** – The patient's nutritional status may make a difference in the healing process. Vitamin C and protein are the two most important nutrients in wound healing. They are important in the formation and maintenance of collagen.
- **Metabolism** – If the patient has a metabolic disease, wound healing could be affected. A diabetic patient heals much more slowly than a normal patient. A diabetic patient usually has depressed circulation, which can slow down the healing process.
- **Medication** – Patients taking steroids have a much slower healing process because of the anti-inflammatory effects steroids have on the body.
- **Edema** – Since edema constricts the pulmonary system, circulation may be depressed in certain areas of the body.
- **Foreign bodies** – Foreign bodies introduced into a wound can cause infection and slow the healing process. Foreign bodies that can enter a patient's wound after surgery include threads from dressings and powder from sterile gloves.
- **Radiation** – If the patient is undergoing radiation treatment following surgery, the nurse should be aware that heavy doses of radiation can damage the wound and slow the healing process.
- **Dressing technique** – Aseptic technique will decrease potential for infection and promote healing.
- **Drains** – If the prescribed drain system is used, such as a Hemovac, Jackson Pratt, or Penrose drain, and it doesn't drain properly, the patient's healing process is lengthened.

- **Stressors** – Wound stressors, such as vomiting, forceful coughing, and straining and twisting movements, may delay healing.

- **Closures** – The quality of the patient's wound closure may affect the healing process. Staples or sutures evenly placed will hasten healing time.

OBJECTIVE 5

Select appropriate guidelines for surgical wound care.

Most surgical incisions are covered by a sterile dressing placed by the surgeon while the patient is in the operating room. Sterile wound dressings serve several important purposes including

- Absorption of drainage from the wound

- Protection for the wound

- Preventing staples from catching on linens

- Minimizing movement of the area around the incision

- Providing psychological support for the patient

- Increasing patient's feeling of security

Nurses are required to care for and change dressings periodically during the patient's recovery period. The nurse should follow these guidelines for changing surgical dressings.

- Explain to the patient the changing procedure.

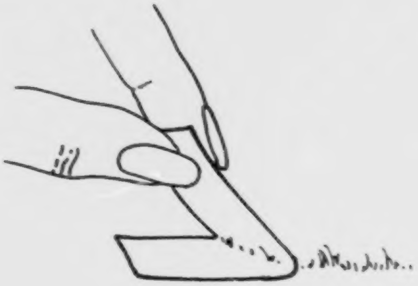
- Always wear gloves when removing the patient's soiled dressing.

- **Always** wear sterile gloves when applying the patient's new sterile dressing.

- Provide privacy during dressing change.

- If changing the dressing will be painful for the patient, administer pain medication before the procedure. If the pain medication will administered IM, administer the medication 30-60 minutes prior to the procedure.

FIGURE 1



REMOVING DRESSING

- When removing adhesive tape from the patient's incision area, pull the tape off parallel with the skin surface and in the direction of hair growth.
- Nurses may use solvents that are available to loosen the adhesive tape while removing the tape.
- After removing the soiled dressing from the patient, note the color and amount of drainage on the dressing, then properly dispose of the soiled dressing.
- If the nurse has used any disposable instruments during the changing procedure, these instruments should be disposed of properly.
- Montgomery strap may be used on patients who have their dressings changed often. In this procedure, tape is secured to the patient's skin. This tape has tiny holes in it where strings are laced through to hold the dressing securely. When changing a Montgomery strap dressing, untie the strings, remove the old dressing, pull the tape edges together, and secure the new dressing in place by tying the strings.
- When cleaning the wound or drain area, use aseptic technique.
- Never change the patient's dressing during mealtime.
- Keep the patient's incision clean and dry until the staples or sutures are removed.

- Do not allow the patient to shower until the doctor gives permission.
- Observe for signs and symptoms of infection.

OBJECTIVE 6

Select the word or phrase that completes assessments about the types of drains and drainage.

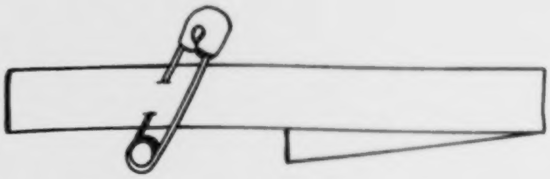
Drains remove air, blood, pus, serum, and bile from the internal tissues surrounding a patient's incision. If the surgeon feels that drainage should continue after the operation, an appropriate type of drain will be put in place. One end of the drain will be placed near the cavity of the incision, and the other end brought outside the body through another incision. The drain tube will then be connected to a suction device to continuously remove excessive fluids.

DRAINS

Several types of drains are available to surgeons. The nurse should be aware of these different drains. Some of the most common types of drains are described below.

- **Penrose drain** – A soft, flat, hollow rubber drain that ranges in size from ¼ inch to 1 inch in diameter. The diameter of the drain depends upon the operation and the thickness of the drainage. A Penrose drain functions by gravity to remove drainage. It is used for uncomplicated draining of wounds. The Penrose drain has no suction mechanism and drains directly into a surgical dressing. A sterile safety pin is inserted through the drain to ensure that a section of the drain remains outside the wound.

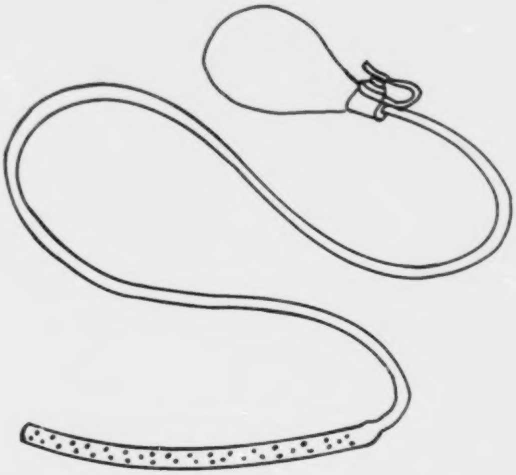
FIGURE 2



PENROSE DRAIN

- **Jackson Pratt wound suction** – A flat rubber device with tiny holes placed into the drainage area in the wound cavity or organ. The flat rubber device connects to clear tubing that is brought to the outside of the body through a tiny incision. The tubing is then connected to a bulb which provides suction. To provide suction, the nurse compresses the bulb and closes a valve on the bulb. The bulb then drains the wound as it expands to its normal size. When the bulb is full of drainage, the nurse opens the valve and empties the contents. To continue drainage, the nurse again compresses the bulb and closes the valve. The bulb should be observed frequently to assure that it is compressed and is providing adequate suction. The bulb should be taped to the patient's dressing to prevent it from becoming dislodged.

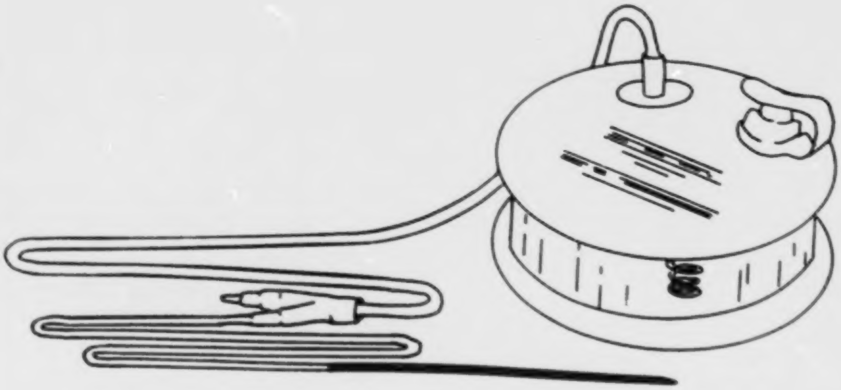
FIGURE 3



JACKSON PRATT WOUND SUCTION

- **Hemovac or Porta-Vac** – Similar to a Jackson Pratt drain in that it works by negative pressure. A Hemovac has one or two drains connected by a Y connector to a suction mechanism. Negative pressure is established by compressing a receptacle and closing a valve. To empty a Hemovac, the nurse opens the valve and empties the contents of the Hemovac into a measuring cup. The nurse then compresses the receptacle and closes the valve to begin drainage. Hemovacs are normally used for ambulatory patients with large draining wounds and are commonly seen with orthopedic surgeries.

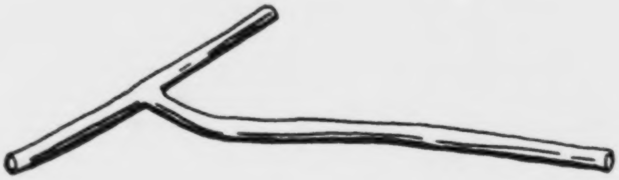
FIGURE 4



HEMOVAC SUCTION

- **T-tubes** — Consist of a crossbar and are placed in the patient to prevent blockage of passageways such as the bile duct.

FIGURE 5



T-TUBE

DRAINAGE

Nurses will observe several different types of drainage associated with wounds. The nurse should be familiar with what these different types of drainage indicate about the patient's condition. Common drainage types are described below.

- **sanguineous** – appearance of blood
- **serosanguinous** – blood mixed with serum
- **seropurulent** – serum and pus mixture
- **purulent** – drainage composed of pus
- **bile** – fluid secreted from liver and stored in gallbladder; bile from liver is straw-colored, but the bile from gallbladder varies from yellow to green or brown

OBJECTIVE 7

Select true statements about dehiscence and evisceration.

There are many possible medical complications during the postoperative period. Many of these complications affect only wounds. Some major complications affecting wounds that can arise postoperatively are discussed below.

Dehiscence

- Dehiscence is a partial or complete separation of the edges of a wound. Separation may be caused by infection, strenuous coughing, or may be related to obesity.

To assess for dehiscence

- Investigate the patient's complaints. The patient may complain that the incision area feels wet or that there is a "giving way" feeling in the incision area.
- Notice that the patient's dressing is saturated with pink-tinged drainage.
- Assess for pain. A complaint of pain normally occurs when a section of the intestine is pushing through the dehiscence.

Interventions for dehiscence are

- Place the patient in low Fowler's position.
- Instruct patient to avoid coughing.

- Call the surgeon and alert the operating room staff of an emergency surgery.
- Keep the patient calm and quiet.
- Observe for signs of shock.

Evisceration

- Evisceration may occur as a result of dehiscence. It is the condition of a section of intestine protruding from the wound.
- Assess evisceration by locating a section of the patient's intestine protruding from the incision area. Other signs of evisceration or impending evisceration are the same as those for dehiscence.

Interventions for evisceration are

- Keep the patient calm.
- Have another nurse call the surgeon and operating room staff to prepare for emergency surgery.
- Stay with the patient to provide emotional support.
- Cover the evisceration with a sterile dressing soaked in saline solution.
- Instruct the patient to bend his/her knees to relieve pressure on the dehiscence and evisceration.

OBJECTIVE 8

List the purposes of urinary catheterization.

Recent studies indicate that urinary tract infections (UTI) are increasing from the use of catheters. Many doctors are trying to avoid the placement of catheters in patients. When a catheter is placed in a patient, however, it is usually done so to:

- Relieve a patient's acute or chronic urinary retention.
- Determine the amount of a patient's residual urine.
- Empty the patient's bladder preoperatively, before delivery, or if the patient experiences difficulty postoperatively.
- Maintain the patient's urinary function.
- Irrigate the patient's bladder.

- Instill chemotherapy into the patient's bladder.
- Accurately measure urine output in critically ill patients.
- Permit drainage in patients with neurogenic bladder.

OBJECTIVE 9

Select the word or phrase that completes statements about the care of urinary catheterization.

- Avoid catheterization, if possible, to avoid the potential for UTI.
- Explain the catheterization procedure to patient.
- Provide for the patient's privacy during the procedure.

⚠ ALWAYS use sterile technique when placing or irrigating a catheter. If the nurse questions the asepsis of a catheter, the nurse should begin the procedure again with a new, sterile catheter.

- Never reuse a contaminated catheter; always perform the procedure (or start over) with a new, sterile catheter.
- If a catheter is accidentally inserted into the patient's vagina, leave it in. Begin the procedure again with a new, sterile catheter. Once the new catheter is properly in place, remove the catheter inserted in the patient's vagina. The reason for this sequence is because the catheter in the vagina will prevent the nurse from inserting the new catheter into the vagina.
- In maintaining the patient's catheter, always keep the drainage bag below the level of the patient's bladder. Do not let the drainage bag touch the floor.
- Do not allow the Foley bag to become completely full. Empty the Foley bag when it is 1/2 full. If the Foley bag becomes completely full, the patient's urine can flow back up the tubing, causing an infection.
- Wash your hands and wear gloves when emptying a Foley bag.
- Wash your hands and change to new gloves between patients when emptying Foley bags for more than one patient.
- Cleanse the area at the meatus–where the catheter enters the patient's urethra–with soap and water at least daily.

- Avoid using powders around the patient's catheter site. Powders may lead to infection.

- Avoid pulling on the catheter when cleaning the area around the patient's meatus as this could introduce bacteria into the urethra.

- Tape the clear drainage tubing to the patient's leg, not the catheter itself, to prevent tension on the catheter. Tension on the catheter could lead to necrosis of the bladder or urethra. Avoid any tension when taping the catheter tubing to the patient's leg as this could cause ulceration in the bladder.

  NOTE: After some urological surgical procedures, the urologist may place tension on the catheter for a short period of time.

- Check the patient for allergies to different types of tape. Some patients are highly allergic to tape.

- Avoid placing tape completely around the patient's leg. Only tape across the patient's thigh.

- When obtaining a sterile culture of the patient's urine, clamp the catheter tubing for a brief time, and withdraw urine from the aspiration port using a sterile syringe and needle. Clean the aspiration port with alcohol before drawing the urine sample. Remember to unclamp the catheter tubing after obtaining the urine sample.

OBJECTIVE 10 **List purposes of nasogastric tubes.**

Nasogastric tubes are commonly used for

- Decompression to remove fluids, gas, and stomach contents from patient's stomach
- Prevention of nausea and vomiting
- Diagnostic testing of the patient's stomach acidity
- Feeding the patient
- Administering medications
- Irrigating the patient with saline in case of gastric hemorrhage
- Emptying patient's stomach before emergency surgery when patient has not been NPO

- Evacuation of patient's stomach contents after ingestion of poison or following a drug overdose

OBJECTIVE 11 **Select true statements about the care of nasogastric tubes.**

- After inserting the NG tube, the tube may be pinned to the patient's gown if the patient is ambulatory. Remove the pin from the patient's gown before removing the gown.
- Inspect the patient's NG tube at least every eight hours and check for nostril irritation or drainage.
- Apply K-Y jelly to lubricate the NG tube, if the patient's nose is dry.
- Provide the patient with frequent mouth care, as the patient must breathe through the mouth.
- Always check the placement of the patient's NG tube every eight hours and before administering any fluids or medications. The NG tube may become dislodged and enter the patient's lungs.
- If feeding the patient through the NG tube, elevate the head of the patient's bed.
- Avoid administering an ice-cold NG tube feeding, as this will cause the patient to cramp.
- Check the placement of the patient's NG tube for an indication of aspirated stomach contents. Many hospitals have a policy stating that if more than 100-150cc of stomach contents are aspirated, the next NG tube feeding is withheld.
- If the patient develops nausea, stop the NG tube feeding.
- Measure I and O.
- If the NG tube is connected to a suction device, be sure to check all connections and settings on the suction device.
- If the NG tube is connected to a suction device, do not allow the patient to lie on or kink the tubing.
- Encourage patient to turn frequently to promote drainage.
- When irrigating the NG tube with fluids, only irrigate the NG tube, not the blue port. Irrigate the blue port with air only.
- Observe for signs of internal bleeding in the NG tube.

- The patient may have hard candy, with the doctor's permission, to stimulate the flow of saliva.
- The patient may have ice chips. Ice chips should be administered sparingly because if enough water is suctioned out the patient could develop an electrolyte imbalance.
- If the patient experiences discomfort from the NG tube, the nurse may administer throat lozenges or spray.

OBJECTIVE 12

Choose indications of intermittent and constant suction.

Gastric contents remain in the stomach because of the sphincter valve between stomach and intestine and gravity. To remove the patient's stomach contents, suction is needed to work against gravity.

- **Intermittent suction** is commonly used with single lumen tubes. While the suction is on, the single lumen tube may adhere to the stomach wall. Intermittent suction causes the tube to move away from the stomach wall during the intervals when suction is off.
- **Constant suction** is used with some double lumen tubes. With these tubes, air can be placed in a vented area and the tubing will still have suction, but will not adhere to the stomach wall.

OBJECTIVE 13

List the purposes of colon tubes.

Colon tubes are used to

- Relieve the patient's discomfort from gas
- Relieve the patient's distention
- Open the patient's anal sphincter and facilitate passing gas
- Allow gas to escape without the patient straining

OBJECTIVE 14

Select true statements about the care of colon tubes.

The nurse should perform the following tasks:

- Always wear gloves when caring for colon tubes.
- Obtain a baseline abdominal assessment.
- Note the patient's frequency of passing flatus.
- Assess the activity level of the patient. Ambulating will help alleviate the patient's gas.
- Assess the patient's diet for gas-forming foods.
- Provide for the patient's privacy.
- Leave colon tube in place for no longer than 20 minutes.
- Colon tubes may be reinserted every four hours.

OBJECTIVE 15

Select true statements about the assessments requiring documentation of postoperative care.

Nurses providing care to postoperative patients should document the following assessments for each postoperative patient:

Physical assessment of the following areas:

- Respiratory
- Circulatory
- Neurological
- Urological
- Pain

Assess

- Vital signs
- Patient's dressings and drain sites, noting the color and odor of drainage
- Compression of suction device, if drain is present; note the color and volume of drainage. The volume of drainage should decrease and become more serous each day following surgery.

- I and O

- Position changes of the patient e.g. "Turned at 2 hours."

- Deep breathing and/or coughing exercises

- Time, distance, and tolerance of the patient's ambulation

- Patient's medication and response

- Sterile dressing changes

- Changes in the patient's condition and notification of the doctor

- Patient's documentation which should be accurate, complete, and up-to-date

ASSIGNMENT SHEETS 1 and 2

Development of:
READING SKILLS
WRITING SKILLS
SCIENCE SKILLS
CREATIVE THINKING/PROBLEM SOLVING SKILLS
EMPLOYABILITY SKILLS
SOCIAL STUDIES SKILLS

- Introduce the assignment to the students by discussing why reading, writing, science, creative thinking/problem solving, employability, and social studies skills are important.
- Discuss with them the following skills which are relevant to this task:

READING

- Gaining factual information
- Interpreting forms and records

WRITING

- Completing forms and records

SCIENCE

- Investigating health issues

CREATIVE THINKING/PROBLEM SOLVING

- Collecting/recording information
- Identifying critical elements/issues
- Analyzing/synthesizing information
- Drawing conclusions
- Creating a finished product
- Developing an action plan

EMPLOYABILITY

- Mastering a specific job task/procedure

SOCIAL STUDIES

- Investigating/applying principles of psychology

- If students have difficulty gaining factual information:
  - Suggest they read carefully, noting key words and ideas.
  - Instruct them to identify areas of concern and organize their thought process and answers.
  - Instruct them to list the questions they hope to answer.
  - Have students practice identifying similar information presented orally.
  - Have students reread information, underlining facts they think will be important in writing a care or teaching plan.
- If students have difficulty interpreting forms and records:
  - Examine the structure of the forms being used.
  - Review the terminology on the form.
  - Review the purpose of the form.
  - Have students compare forms for common information.
- If students have difficulty completing forms and records:
  - Examine the structure of the forms being used.
  - Stress the importance of accurate, legible records.
  - Review the information included on each form, noting what information is objective (test results, instructions) and what is more subjective (patient anxiety, lack of clear support system).

- If students have difficulty investigating health issues:
  - Have them identify the issues they are considering.
  - Have them explain the link between the issue and the procedure.
  - Have students relate behavior to procedure and identify appropriate issues.
  - Review the use of references to answer questions they may have.
- If students have difficulty collecting/recording information:
  - Have students list sources of information, including patient interviews and forms available.
  - Have students review proper terminology.
  - Have students review written descriptions, video films, or role-play situations to identify information and recording it.
- If students have difficulty identifying critical elements/issues:
  - Instruct them to listen or watch carefully for clue words that suggest a critical issue is being presented.

    EXAMPLE: Patient: "The doctor says take it easy, but I just can't, you know, nose to the grindstone and all that. But I'll be okay. I've never needed much rest, anyhow."
  - Suggest they list the questions they hope to answer.
  - Suggest that students divide the situation into smaller possible issues and address them one at a time.
- If students have difficulty analyzing/synthesizing information:
  - Remind them that to analyze information they must break the information down into all its components in order to understand it.
  - Remind them that to synthesize information they should put all the components together in a way that makes the information usable.
  - Have students relate the various issues to each other and to other related possibilities.

- If students have difficulty drawing conclusions:
  - Have students examine the collected data and look for patterns, the range of issues identified, and the nursing goal.
  - Have students confirm their conclusions by working backwards.
- If students have difficulty creating a finished product:
  - Review the analysis and synthesis of information to determine whether the conclusions are correct.
  - Review the action plan to determine whether it will bring the desired results.
  - Discuss the way in which the finished product is organized.
  - Review the requirements of the assignment.
  - Suggest that they use intuitive thinking techniques to formulate an idea.
  - Instruct them to work one step at a time until the project is finished.
- If students have difficulty developing an action plan:
  - Instruct them to list their goals.
  - Discuss the steps necessary to attain the goals.
  - Instruct them to arrange the steps in a logical order.
- If students have difficulty mastering a specific job task/procedure:
  - Emphasize the fact that practice makes a person proficient and proficiency makes a person confident.
  - Suggest that they study each component of the procedure to determine which area is causing difficulty.
  - Review the entire procedure.
  - Team them with proficient students or professionals to practice the procedure.
  - Have the student identify the area of skill with which he or she is having difficulty.

- If students have difficulty investigating/applying principles of psychology:
  - Have students review communication techniques.
  - Have students role-play patient, nurse, and physician roles to create empathy and a better understanding of roles and goals.
  - Have students review sample plans for psychological applications.

JOB SHEET 1

Development of:
READING SKILLS
SCIENCE SKILLS
CREATIVE THINKING/PROBLEM SOLVING SKILLS
EMPLOYABILITY SKILLS

- Introduce the assignment to the students by discussing why reading, science, creative thinking/problem solving, and employability skills are important.

- Discuss with them the following skills which are relevant to this task:

  READING

  - Interpreting forms and records

  SCIENCE

  - Using scientific instruments (sphygmomanometer)
  - Investigating/applying principles of anatomy/physiology
  - Investigating health issues

  CREATIVE THINKING/PROBLEM SOLVING

  - Collecting/recording information
  - Identifying critical elements/issues
  - Analyzing/synthesizing information
  - Applying intuitive thinking techniques

  EMPLOYABILITY

  - Mastering a specific job task/procedure
  - Practicing good work habits/attitudes

- If students have difficulty using scientific instruments (sphygmomanometer):

  - Review the correct procedure for its use.
  - Team them with students proficient in using the sphygmomanometer and allow students to observe the procedure repeatedly; then practice using the instrument before they begin their practical application tests.

- If students have difficulty investigating/applying principles of anatomy/physiology, have students describe the expected condition of the patient, list patient needs, then identify room needs.

- If students have difficulty applying intuitive thinking techniques:

  - Remind them that one idea stimulates another and they should keep going without judging or criticizing their ideas.

  - Encourage them to trust their own informed thinking.

  - Remind them that when working with others, all ideas are potential winners and should be respected and accepted until time for discussion and evaluation.

  - Get students involved in sharing ideas with a creativity-enhancing exercise, such as listing all the uses for a clothespin or activities such as those recommended in a book on creativity.

    NOTE: *A Whack on the Side of the Head: How to Unlock Your Mind for Innovation* is a creativity activity book by Roger Von Oech and published by Warner Books, New York, 1983. Includes games, illustrations, exercises and self-evaluation tests.

- If students have difficulty practicing good work habits/attitudes:

  - Encourage them to become familiar with the entire procedure before they begin the work.

  - Discuss the role that good work habits and attitudes have in obtaining and retaining employment.

  - Discuss what behaviors and attitudes constitute good work habits.

  - Make sure students know what is expected of them.

  - Review the importance of good work habits as it relates to patient care and recovery.

  - Review legal responsibilities as they relate to work habits.

- For additional suggestions on teaching basic skills, refer to suggestions for Assignment Sheets 1 & 2.

JOB SHEETS 2 & 3

Development of:
READING SKILLS
WRITING SKILLS
MATHEMATICS SKILLS
SCIENCE SKILLS
ORAL COMMUNICATION SKILLS
INTERPERSONAL OR RELATING SKILLS
EMPLOYABILITY SKILLS

- Introduce the assignment to the students by discussing why reading, writing, mathematics, science, oral communication, interpersonal or relating, and employability skills are important.

- Discuss with them the following skills which are relevant to this task:

  READING

  - Interpreting forms and records
  - Following written instructions

  WRITING

  - Completing forms and records

  MATHEMATICS

  - Using English and metric measures
  - Making measurements

  SCIENCE

  - Collecting specimens
  - Investigating/applying principles of anatomy/physiology
  - Investigating health issues

  ORAL COMMUNICATION

  - Communicating with clients/customers

  INTERPERSONAL OR RELATING

  - Interacting with clients/customers/patients
  - Giving/receiving feedback

EMPLOYABILITY

  - Mastering a specific job task/procedure
  - Practicing good work habits/attitudes
  - Dealing effectively with customers/clients

- If students have difficulty following written instructions:
  - Discuss the possible consequences of not following instructions precisely.
  - Have them read the instructions several times, noting the key words and ideas.
  - Have students restate the instructions in their own words.
- If students have difficulty using English and metric measures:
  - Suggest that they look at a calibrated container that is marked in both English and metric and study the measurements until there is a concrete idea about the sizes of different units of measurement.
  - Have students convert measurements to become accustomed to their relative sizes.
  - As work progresses, have students make measurements in one, estimate the measurement in units of the other system, then convert the measurement or remeasure using the other system.
- If students have difficulty making measurements:
  - Review the units of measure.
  - Demonstrate the correct way to measure using the specific measuring instrument.
- If students have difficulty collecting specimens:
  - Review procedure for collecting samples.
  - Explain the procedures for handling samples and contaminated tools and equipment.
  - Allow students to practice collecting samples before completing the job sheet.
- If students have difficulty communicating with clients/customers:

  - Suggest that they role-play patient communication scenes, focusing on the patient's expectations and perspective.
  - Discuss the importance of courtesy and how it affects patient communication.
  - Review how patient age and condition can affect communication and procedure.

- If students have difficulty interacting with clients/customers/patients:
  - Have them identify their responsibilities as an employee and discuss how their actions meet those responsibilities.
  - Suggest phrases they can use regularly and have them practice the phrases, noting volume, grammar, and intonation.
  - Discuss the importance of body language and posture.
  - Review the importance of constructive interaction in making procedures less stressful.

- If students have difficulty giving/receiving feedback:
  - Explain that we learn from our mistakes.
  - Remind them to be helpful, courteous, and treat one another with respect.
  - Stress using active listening skills.
  - Discuss the difference between patient reaction to situational stress and patient feedback. Stress the importance of hearing patient needs.

- If students have difficulty dealing effectively with customers/clients:
  - Discuss the importance of effective communication skills.
  - Review active listening skills and other communication techniques.
  - Discuss patient relations policies.
  - Have students role-play the procedure, identifying patient needs and reactions and stating appropriate responses.

- For additional suggestions on teaching basic skills, refer to suggestions for Assignment Sheets 1 & 2 and Job Sheet 1.

JOB SHEET 4

Development of:
READING SKILLS
WRITING SKILLS
SCIENCE SKILLS
ORAL COMMUNICATION SKILLS
INTERPERSONAL OR RELATING SKILLS
EMPLOYABILITY SKILLS

- Introduce the assignment to the students by discussing why reading, writing, science, oral communication, interpersonal or relating, and employability skills are important.

- Discuss with them the following skills which are relevant to this task:

  READING

  - Interpreting forms and records
  - Following written instructions

  WRITING

  - Completing forms and records

  SCIENCE

  - Investigating/applying principles of anatomy/physiology
  - Investigating health issues

  ORAL COMMUNICATION

  - Communicating with clients/customers

  INTERPERSONAL OR RELATING

  - Interacting with clients/customers/patients

  EMPLOYABILITY

  - Mastering a specific job task/procedure
  - Practicing good work habits/attitudes

- For additional suggestions on teaching basic skills, refer to suggestions for Assignment Sheets 1 & 2, Job Sheet 1, and Job Sheets 2 & 3.

Development of:
READING SKILLS
WRITING SKILLS
MATHEMATICS SKILLS
SCIENCE SKILLS
ORAL COMMUNICATION SKILLS
INTERPERSONAL OR RELATING SKILLS
EMPLOYABILITY SKILLS

- Introduce the assignment to the students by discussing why reading, writing, mathematics, science, oral communication, interpersonal or relating, and employability skills are important.

- Discuss with them the following skills which are relevant to this task:

  READING

  - Interpreting forms and records
  - Following written instructions

  WRITING

  - Completing forms and records

  MATHEMATICS

  - Using English and metric measures
  - Making measurements

  SCIENCE

  - Investigating/applying principles of anatomy/physiology
  - Investigating health issues

  ORAL COMMUNICATION

  - Communicating with clients/customers

  INTERPERSONAL OR RELATING

  - Interacting with clients/customers/patients

EMPLOYABILITY

- Mastering a specific job task/procedure
- Practicing good work habits/attitudes

- For additional suggestions on teaching basic skills, refer to suggestions for Assignment Sheets 1 & 2, Job Sheet 1, and Job Sheets 2 & 3.

JOB SHEET 6

Development of:
READING SKILLS
WRITING SKILLS
SCIENCE SKILLS
ORAL COMMUNICATION SKILLS
INTERPERSONAL OR RELATING SKILLS
EMPLOYABILITY SKILLS

- Introduce the assignment to the students by discussing why reading, writing, science, oral communication, interpersonal or relating, and employability skills are important.
- Discuss with them the following skills which are relevant to this task:

READING

- Interpreting forms and records
- Following written instructions

WRITING

- Completing forms and records

SCIENCE

- Investigating/applying principles of anatomy/physiology
- Investigating health issues

ORAL COMMUNICATION

- Applying active listening skills
- Communicating with clients/customers

INTERPERSONAL OR RELATING

- Interacting with clients/customers/patients

EMPLOYABILITY

- Mastering a specific job task/procedure
- Practicing good work habits/attitudes
- Dealing effectively with customers/clients

- If students have difficulty applying active listening skills:
  - Stress the importance of focusing on the speaker.
  - Remind students that maintaining eye contact enhances listening ability.
  - Practice concentrating on the speaker and ignoring common distractions.
  - Suggest that they be ready to listen before beginning the communication.
  - Review the importance of clearly hearing patients in forming nursing plans and monitoring patient progress.
- For additional suggestions on teaching basic skills, refer to suggestions for Assignment Sheets 1 & 2, Job Sheet 1, and Job Sheets 2 & 3.

JOB
SHEETS 7 & 8

Development of:
READING SKILLS
WRITING SKILLS
SCIENCE SKILLS
INTERPERSONAL OR RELATING SKILLS
EMPLOYABILITY SKILLS

- Introduce the assignment to the students by discussing why reading, writing, science, interpersonal or relating, and employability skills are important.

- Discuss with them the following skills which are relevant to this task:

  READING

  - Gaining factual information
  - Interpreting forms and records
  - Following written instructions

  WRITING

  - Completing forms and records

  SCIENCE

  - Investigating/applying principles of anatomy/physiology
  - Investigating health issues

  ORAL COMMUNICATION

  - Communicating with clients/customers

  INTERPERSONAL OR RELATING

  - Interacting with clients/customers/patients

  EMPLOYABILITY

  - Mastering a specific job task/procedure
  - Practicing good work habits/attitudes
  - Dealing effectively with customers/clients

- For additional suggestions on teaching basic skills, refer to suggestions for Assignment Sheets 1 & 2, Job Sheet 1, and Job Sheets 2 & 3.

JOB SHEETS 9-11

Development of:
READING SKILLS
WRITING SKILLS
MATHEMATICS SKILLS
SCIENCE SKILLS
ORAL COMMUNICATION SKILLS
INTERPERSONAL OR RELATING SKILLS
EMPLOYABILITY SKILLS

- Introduce the assignment to the students by discussing why reading, writing, mathematics, science, oral communication, interpersonal or relating, and employability skills are important.

- Discuss with them the following skills which are relevant to this task:

  READING

  - Gaining factual information
  - Interpreting forms and records
  - Following written instructions

  WRITING

  - Completing forms and records

  MATHEMATICS

  - Using English and metric measures
  - Making measurements

  SCIENCE

  - Investigating/applying principles of anatomy/physiology
  - Investigating health issues

  ORAL COMMUNICATION

  - Communicating with clients/customers

  INTERPERSONAL OR RELATING

  - Interacting with clients/customers/patients

EMPLOYABILITY

- Mastering a specific job task/procedure
- Practicing good work habits/attitudes
- Dealing effectively with customers/clients

- For additional suggestions on teaching basic skills, refer to suggestions for Assignment Sheets 1 & 2, Job Sheet 1, and Job Sheets 2 & 3.

JOB SHEET 12

Development of:
READING SKILLS
WRITING SKILLS
MATHEMATICS SKILLS
SCIENCE SKILLS
ORAL COMMUNICATION SKILLS
INTERPERSONAL OR RELATING SKILLS
EMPLOYABILITY SKILLS

- Introduce the assignment to the students by discussing why reading, writing, mathematics, science, oral communication, interpersonal or relating, and employability skills are important.

- Discuss with them the following skills which are relevant to this task:

READING

- Gaining factual information
- Interpreting forms and records
- Following written instructions

WRITING

- Completing forms and records

MATHEMATICS

- Using English and metric measures
- Making measurements

SCIENCE

- Investigating/applying principles of anatomy/physiology
- Investigating health issues

ORAL COMMUNICATION

- Applying active listening skills
- Communicating with clients/customers

INTERPERSONAL OR RELATING

- Interacting with clients/customers/patients

EMPLOYABILITY

- Mastering a specific job task/procedure
- Practicing good work habits/attitudes
- Dealing effectively with customers/clients

- For additional suggestions on teaching basic skills, refer to suggestions for Assignment Sheets 1 & 2, Job Sheet 1, Job Sheets 2 & 3, and Job Sheet 6.

ASSIGNMENT SHEET 1

PROVIDING CARE FOR THE POSTOPERATIVE PATIENT

VIII

Name ______________________________ Score ________

OBJECTIVE 16

Develop a patient's discharge teaching plan.

INTRODUCTION

Mr. Wallace, a 62-year-old male patient, underwent surgery for a right colectomy 10 days ago. He has staples in place on his incision, and they will be removed at the doctor's office.

He will need to change the wound dressing once a day. When changing the dressing, he will need to clean the staples with provadine iodine solution and place antibiotic ointment on the incision site. He is very anxious about his dressing changes and worries about infection.

Mr. Wallace has had a bowel movement, but continues to suffer from gas and constipation. His doctor will prescribe Bactrium D.S. to take BID x two weeks, and Tylenol #3, one every four to six hours for pain.

Mr. Wallace's wife is here to visit and he says, "Honey, before I go home, we need to go by the pharmacy and pick up some Tylenol. The doctor told me to take three Tylenol every four hours for pain."

DIRECTIONS

Develop a patient discharge plan for Mr. Wallace and his wife. Include any explanation concerning medications, dressing changes, and future doctor's appointments.

Reading Comprehension Skills
- Gain factual information

Functional Reading Skills
- Interpret forms and records

Functional Writing Skills
- Complete forms and records

Assessment

- Assess the patient's current knowledge level and understanding of his condition.
- Assess the patient's readiness to learn about caring for himself.
- Assess the best time for the patient to learn and the best teaching style for the patient.
- Assess any other health problems the patient may have.
- Assess support techniques for the patient.
- Assess the patient's expectations.

Planning

- Determine short- and long-term recovery goals with the patient.
- Determine interventions necessary for the patient to achieve those goals.

Evaluation

- Can the patient verbalize an understanding of the instructions?
- Can the patient correctly state when to take medications and how many to take?
- Does the patient understand when to return to the doctor's office for an appointment?

Life Science Skills

- Investigate health issues (medical, ergonomic, nutrition, mental health)

Cognitive Activities Skills

- Collect/record information
- Identify critical elements/issues
- Analyze/synthesize information
- Draw conclusions

Job Acquisition/ Development Skills

- Master specific job task/procedure

Social Studies Application Skills

- Investigate/apply principles of psychology

BEST COPY AVAILABLE

ASSIGNMENT SHEET 2

PROVIDING CARE FOR THE POSTOPERATIVE PATIENT

VIII

Name ______________________________ Score ________

OBJECTIVE 17

Write a postoperative patient plan of care.

INTRODUCTION

Write a postoperative patient plan of care based on the information about Mr. Wallace given in Objective 16. In the plan of care, identify problems or needs, goals, interventions, and evaluation of each intervention. After completing the plan of care, return it to the instructor.

A sample plan of care for a different patient is provided for the nurse to follow in developing Mr. Wallace's plan of care.

SAMPLE PATIENT PLAN OF CARE

Diagnosis: Right Radical Mastectomy

Problems or Needs

- Potential for pneumonia, related to the patient's history of smoking
- Potential for wound infection
- Pain
- Denial
- Ineffective coping skills
- Potential for contracture of shoulder, related to refusal to exercise after surgery
- Depression
- Sexual dysfunction
- Fear of rejection from others, especially from her husband
- Fear of cancer
- Potential for lymphedema

Reading Comprehension Skills
- Gain factual information

Functional Reading Skills
- Interpret forms and records

Functional Writing Skills
- Complete forms and records

Life Science Skills
- Investigate health issues (medical, ergonomic, nutrition, mental health)

Cognitive Activities Skills
- Collect/record information
- Identify critical elements/issues
- Analyze/synthesize information
- Draw conclusions

BEST COPY AVAILABLE

Job Acquisition/ Development Skills
- Master specific job task/procedure

Social Studies Application Skills
- Investigate/apply principles of psychology

- Potential for blood clots
- Lack of support systems
- Fear of side effects from radiation therapy

Interventions

- Provide support.
- Encourage the patient to verbalize her concerns.
- Encourage the patient to talk with the hospital's mastectomy group.
- Have the patient exercise to prevent contracture of shoulder.
- Provide the patient with information about possible breast implants or mammoplasty.
- Encourage the patient to use a diet high in Vitamin C and protein to promote wound healing.
- Teach the patient to elevate her arm to prevent lymphedema.
- Encourage the patient's husband to provide support if possible.
- Encourage the patient to practice deep breathing to avoid respiratory complications.
- Observe the patient for signs of bleeding.
- Observe the patient for signs and symptoms of infection.

Evaluations: Evaluate each problem or need and each intervention.

Discharge Planning

Instruct the patient to

- Avoid needle sticks in the operative arm
- Avoid injections in operative arm
- Avoid cuts and scrapes in operative side; e.g. caution the patient about working in garden without gloves.
- Avoid reaching with operative arm; e.g. reaching into an oven, to high shelves.

BEST COPY AVAILABLE

- Not allow anyone to take blood pressure from operative arm
- Wear a Medic-alert bracelet
- Become involved in a support group (e.g. Reach for Recovery)
- See doctor frequently

ASSIGNMENT SHEETS 1 and 2

The patient discharge plan and plan of care should include an understanding of the following:

- Anxiety concerning dressing change reveals Mr. Wallace is unsure of dressing change technique, which could lead to wound infection.
- Mr. Wallace continues to complain of gas and constipation. He needs some knowledge about treatment of constipation and gas.
- Mr. Wallace is confused about dosage of medication. The order is Tylenol #3, one every four to six hours. He thinks the doctor said to take three Tylenol every four to six hours.

Problems

- Patient lack of understanding
- Potential for wound infection
- Potential for inaccurate use of medication
- Constipation
- Gas

Patient-teaching should be completed at a time when Mrs. Wallace is also available.

Use visual aids to inform Mr. and Mrs. Wallace about medication dosage and times.

Mr. Wallace should be told that with proper dressing change technique, he should not worry about wound infection.

It may be necessary to arrange for a home health care nurse to complete dressing changes

Short-term goal: Patient and wife verbalize their understanding of medication instructions.

Long-term goal: Following the patient-teaching, Mr. Wallace should be able to verbalize his understanding of instruction.

JOB SHEET 1

PROVIDING CARE FOR THE POSTOPERATIVE PATIENT

Name ______________________________ Score _______

OBJECTIVE 18 **Prepare a post-surgical unit.**

INTRODUCTION

In preparation for the patient's return to the postoperative unit, the nurse must provide clear access from the door to the bed for the recovery room carrier. All equipment that will be needed for the patient's postoperative care should be in place and tested. All machinery that will be used to assist the patient's recovery should be checked prior to receiving the patient; e.g. make sure the suction machine functions. The top covers on the patient's bed should be folded back to one side or to the foot of the bed. Other items available in the patient's room should include a wash cloth, emesis basin, extra gown, thermometer, stethoscope, blood pressure cuff, IV poles, oxygen; make sure an oropharyngeal airway is available. The patient's bed should be raised to match the height of the recovery room carrier. After transferring the patient to the bed, raise the bed side rails and lower the bed. Keep the patient's room free of clutter in case of emergency.

EQUIPMENT AND SUPPLIES

- Bed linens, including fitted sheet, top sheet, draw sheet, blankets, bedspread, pillowcase, and pillow
- Bedside table
- Overhead table
- Sphygmomanometer
- Stethoscope
- IV stand
- Tissues
- Emesis basin
- Intake and Output (I/O) sheet
- Special equipment, e.g. suction machine

PROCEDURE

Assessment and Analysis

Yes No

1. Collect all information about the type of surgical procedure the patient has undergone. _____ _____

Planning

1. Assemble all needed equipment and supplies. _____ _____

Implementation

1. Wash hands. _____ _____
2. Prepare the patient's postoperative bed. _____ _____
3. Lock the wheels on the patient's bed. _____ _____
4. Place an IV stand in the room near the patient's bed, if an IV rod is not connected to the bed. _____ _____
5. Prepare the patient's room for access of the recovery room carrier. If necessary, move any furniture to provide clear access. _____ _____

Evaluation

1. Assess that there is clear access for the recovery room carrier from the door to the patient's bed. _____ _____
2. Verify that the patient's bed linens are free of wrinkles and bed is made properly. _____ _____

Functional Reading Skills
- Interpret forms and records

General Science Skills
- Use scientific instruments (sphygmomanometer)

Life Science Skills
- Investigate/apply principles of anatomy/physiology
- Investigate health issues (medical, ergonomic, nutrition, mental health)

Cognitive Activities Skills
- Collect/record information
- Identify critical elements/issues
- Analyze/synthesize information
- Apply intuitive thinking techniques (brainstorming, lateral thinking, divergent thinking, etc.)

Job Acquisition/ Development Skills
- Master specific job task/procedure
- Practice good work habits/attitudes

(End of Job Sheet)

SKILL TEST RECORD

EVALUATOR'S COMMENTS

PRODUCT EVALUATION

Evaluator note: Rate the student on the following criteria by circling the appropriate numbers. Each criterion must receive a rating of "3" or higher to demonstrate student mastery. (See Performance Evaluation Key.) A student who is unable to demonstrate mastery should review the material and submit another product for evaluation.

Criteria:				
Gathered all equipment and supplies	4	3	2	1
Provided for clear access for recovery room carrier	4	3	2	1
Properly prepared a postoperative bed and linens	4	3	2	1
Correctly documented procedure	4	3	2	1

EVALUATOR'S COMMENTS

AVERAGE RATING

Evaluator note: To obtain an average rating for the Competency Profile, total the designated points in "Product Evaluation" and divide by the total number of criteria. Circle the rating on the "Performance Evaluation Key" below.

PERFORMANCE EVALUATION KEY

4 **Skilled** – Can perform job with no additional training

3 **Moderately Skilled** – Has performed job during training program; limited additional training may be required

2 **Limited Skill** – Has performed job during training program; additional training is required to develop skill

1 **Unskilled** – Is familiar with process, but is unable to perform job

JOB SHEET 2

PROVIDING CARE FOR THE POSTOPERATIVE PATIENT

Name ______________________________ Score ____________

OBJECTIVE 19

Perform a urinary catheterization—female patient.

INTRODUCTION

Catheterization is an invasive procedure which is used to obtain urine for testing or to relieve urinary retention after all other measures fail. Many patients require continuous bladder drainage. Catheterization is a sterile procedure; if sterile technique is not used, the patient could have serious complications. If a break in sterile technique is noted, the entire catheterization procedure must be restarted. Two nurses might be required to perform the procedure on an uncooperative patient. Patients with indwelling catheters should be encouraged to increase their fluid intake unless NPO. Patients should be assessed daily for bladder distention and complaints of burning sensations.

EQUIPMENT AND SUPPLIES

- Sterile gloves
- Catheter kit
- Proper lighting
- If no catheter kit is available, the following supplies are needed
    - Drapes
    - Single catheter
    - Cotton balls
    - Antiseptic solution
    - Forceps
    - Lubricant
    - Sterile urine cup for specimen
    - Bed protector or bath blanket
    - Measuring container.

PROCEDURE

Functional Reading Skills
- Interpret forms and records
- Follow written instructions

Functional Writing Skills
- Complete forms and records

Math Application Skills
- Use English and metric measures

Functional Math Skills
- Make measurements

General Science Skills
- Collect specimens

Life Science Skills
- Investigate/apply principles of anatomy/physiology
- Investigate health issues (medical, ergonomic, nutrition, mental health)

Interactive Communication Skills
- Communicate with clients/customers

	Yes	No
Assessment and Analysis		
1. Check the doctor's orders for the patient.	_____	_____
2. Identify the patient and explain the catheterization procedure.	_____	_____
Planning		
1. Assemble needed equipment and supplies.	_____	_____
2. Adjust the light source so it is adequate to perform the procedure.	_____	_____
3. Provide for the patient's privacy.	_____	_____
4. Position the patient in a supine position with the patient's knees bent, hips flexed, and feet resting flat on bed.	_____	_____
Implementation		
1. Wash hands.	_____	_____
2. Place the catheter tray between the patient's legs. The tray should be a few inches away from the patient's perineum to avoid contamination of the tray.	_____	_____
3. Open the catheter tray. Unwrap the outside paper by opening the wrapper away from the nurse first to prevent contamination by reaching over sterile field to open outer edges of package. DO NOT touch the inside of the tray.	_____	_____
4. Lift the sterile drape by the edges to avoid contaminating the drape. The outer edges of the drape are considered unsterile.	_____	_____

General Relating Skills
- Interact with clients/ customers/patients

Teamwork/ Cooperative Skills
- Give/receive feedback

Job Acquisition/ Development Skills
- Master specific job task/procedure
- Practice good work habits/attitudes
- Deal effectively with customers/clients

Yes No

5. Touching only the outer edges of the drape, tuck the edges of the drape under the patient's thighs and buttocks. To smooth the drape, touch only its underside to avoid contaminating the top. _____ _____

6. Put on sterile gloves. _____ _____

7. Lift out the sterile catheterization tray and place it on the sterile drape. _____ _____

8. Apply the top sterile drape to the patient so that the patient's perineum is uncovered through the opening in the drape. _____ _____

NOTE: Some nurses prefer not to use this drape.

9. Open the packet of sterile antiseptic solution. Pour the solution Over the cotton balls in the sterile tray. _____ _____

10. Open the catheter lubricant container and place it in the sterile tray. _____ _____

11. Remove the sterile catheter from the tray. Be careful not to touch the outside of the tray with any part of the catheter. _____ _____

12. Inflate the balloon with specified solution to test catheter balloon, then draw back solution in syringe for use after catheter placement. _____ _____

13. Apply lubricant to the tip of the catheter or in the container provided. Return the catheter to the sterile tray until ready to insert in the patient. _____ _____

14. Separate the patient's labia, using thumb and forefinger, to expose the patient's urinary meatus. _____ _____

NOTE: Remember that the nurse's hand used to touch the patient's labia is now contaminated, and this hand should not be removed from the area of the patient's labia until the catheter is in place.

	Yes	No
15. Cleanse the patient's meatus by wiping the far outer edges of the patient's meatus with a single stroke of a cotton ball soaked in antiseptic solution. The cleansing stoke should go from the top to bottom of the patient's meatus, and the cotton ball should be discarded. The cotton ball must not be held in the hand, but with forceps provided in the catheterization kit.	_____	_____
16. Cleanse on each side of the patient's meatus. Use a single stroke with a cotton ball held in forceps. Clean from the top to the bottom, then discard the cotton ball after each stroke and continue cleaning with a new cotton ball.	_____	_____
17. Clean directly over the center of the patient's meatus, using a single cotton ball held in forceps. Use a single stroke from top to bottom. Discard the used cotton ball. If further cleaning of the patient's meatus is necessary, use a new cotton ball for each stroke.	_____	_____
NOTE: When cleaning the patient's meatus, always hold the cotton ball in forceps to avoid contaminating the sterile gloves with a contaminated cotton ball.		
18. Continue to hold open the patient's labia. If your hand moves at all, consider the patient's labia contaminated and start over with sterile procedure.	_____	_____
19. Pick up the catheter with sterile hand.	_____	_____
20. Insert the catheter into the patient's meatus. Be gentle, and continue inserting until urine is viewed in the catheter.	_____	_____
NOTE: If catheter is accidentally inserted into the patient's vagina, it may be left in place while inserting a new sterile catheter into the patient's meatus.		
21. Allow the patient's urine to drain into the sterile container if a specimen is needed.	_____	_____

Yes No

22. Do not drain more than 800-1000cc of urine from the patient. When 800-1000cc of urine has drained, clamp the catheter tubing. ______ ______

23. If straight catheter only, remove the catheter gently from the patient's meatus, only if straight catheter procedure. ______ ______

⚠ **CAUTION:** IF THE CATHETER IS CLAMPED, ALWAYS REMEMBER TO UNCLAMP IT.

---

24. If it is a Foley catheter and is to be retained in the patient's meatus to drain the patient's bladder, advance the catheter slowly and gently into the bladder. ______ ______

25. Inflate the balloon with the designated amount of solution; e.g. usually about 10cc of sterile saline. ______ ______

NOTE: For elderly patients who have been pulling out a number of catheters, more solution may be needed to inflate the balloon and retain the catheter in the patient's bladder. ______ ______

26. Pull slightly on the catheter to make sure it is positioned securely in the patient's bladder. ______ ______

27. Clean and dry the area around the patient's perineum. ______ ______

28. Remove gloves and drapes. Dispose of waste according to biohazardous waste policy. ______ ______

29. Secure clear drainage tubing to patient's thigh. ______ ______

30. Provide for the patient's comfort. ______ ______

31. Wash hands. ______ ______

	Yes	No
32. **Label the patient's urine specimen and send the specimen to the lab, if ordered.**	___	___

Evaluation

	Yes	No
1. Verify that a sterile urine specimen has been obtained from the patient or that the patient's bladder was drained of residual urine.	___	___
2. Verify that Foley catheter is patent and draining urine.	___	___
3. Verify that catheter tubing is securely taped to the patient's thigh.	___	___
4. Verify that sterile technique was maintained throughout the catheterization procedure.	___	___

Documentation

	Yes	No
1. Time of the catheterization procedure.	___	___
2. Size of catheter inserted and the amount of fluid placed in balloon.	___	___
3. Amount of urine collected.	___	___
4. Color and consistency of the patient's urine.	___	___
5. Patient's response to the catheterization procedure.	___	___

(End of Job Sheet)

SKILL TEST RECORD

EVALUATOR'S COMMENTS ______________________________

____

____

PRODUCT EVALUATION

Evaluator note: Rate the student on the following criteria by circling the appropriate numbers. Each criterion must receive a rating of "3" or higher to demonstrate student mastery. (See Performance Evaluation Key.) A student who is unable to demonstrate mastery should review the material and submit another product for evaluation.

Criteria:

Checked doctor's order	4	3	2	1
Identified patient and explained procedure	4	3	2	1
Gathered all equipment and supplies	4	3	2	1
Provided for patient's privacy	4	3	2	1
Placed patient in correct position	4	3	2	1
Washed hands and put on gloves	4	3	2	1
Opened catheter tray using sterile technique	4	3	2	1
Prepared inside of tray without contaminating contents	4	3	2	1
Used forceps in tray to cleanse patient	4	3	2	1
Placed catheter without contamination	4	3	2	1
Catheter clear tubing secured to patient's thigh	4	3	2	1
Discarded equipment and supplies according to hospital policy	4	3	2	1
Correctly documented procedure	4	3	2	1

EVALUATOR'S COMMENTS

AVERAGE RATING

Evaluator note: To obtain an average rating for the Competency Profile, total the designated points in "Product Evaluation" and divide by the total number of criteria. Circle the rating on the "Performance Evaluation Key" below.

PERFORMANCE EVALUATION KEY

4 **Skilled** – Can perform job with no additional training
3 **Moderately Skilled** – Has performed job during training program; limited additional training may be required
2 **Limited Skill** – Has performed job during training program; additional training is required to develop skill
1 **Unskilled** – Is familiar with process, but is unable to perform job

JOB SHEET 3

PROVIDING CARE FOR THE POSTOPERATIVE PATIENT

Name ______________________________ Score ____________

OBJECTIVE 20

Perform a urinary catheterization—male patient.

INTRODUCTION

Sterile technique is absolutely necessary when catheterizing a patient. A urinary tract infection can be introduced to a healthy patient when inserting a catheter, if sterile technique is not used. Catheters are inserted for various reasons, such as obtaining a sterile urine specimen, continuous bladder drainage, and relieving a distended bladder.

EQUIPMENT AND SUPPLIES

- Sterile gloves
- Sterile catheter kit
- Proper lighting
- If no catheter kit is available, the following supplies are needed:
  - Drapes
  - Single catheter
  - Cotton balls
  - Antiseptic solution
  - Measuring container
  - Forceps
  - Lubricant
  - Sterile urine cup for specimen
  - Bed protector or bath blanket

PROCEDURE

Functional Reading Skills
- Interpret forms and records
- Follow written instructions

Functional Writing Skills
- Complete forms and records

Math Application Skills
- Use English and metric measures

Functional Math Skills
- Make measurements

General Science Skills
- Collect specimens

Life Science Skills
- Investigate/apply principles of anatomy/ physiology
- Investigate health issues (medical, ergonomic, nutrition, mental health)

Interactive Communication Skills
- Communicate with clients/customers

Assessment and Analysis	Yes	No
1. Check the doctor's order for the patient.	____	____
2. Identify the patient and explain the catheterization procedure.	____	____
Planning		
1. Assemble all needed equipment and supplies.	____	____
2. Provide for the patient's privacy.	____	____
3. Position the patient in a supine position with legs extended.	____	____
Implementation		
1. Wash hands.	____	____
2. Place the catheter tray between the patient's legs without contaminating the tray.	____	____
3. Open the catheter tray. Unwrap the outer package to prevent contamination from reaching over package to unwrap.	____	____
4. Lift the sterile drape by its edges and place the drape across the patient's upper thighs.	____	____
5. Put on sterile gloves.	____	____
6. Lift out the inside sterile tray and set it on the sterile drape.	____	____
7. Open the packet of sterile antiseptic solution in the catheter tray and pour the solution over the cotton balls.	____	____
8. Open the catheter lubricant container and place it on the sterile tray.	____	____

General Relating Skills

- Interact with clients/ customers/patients

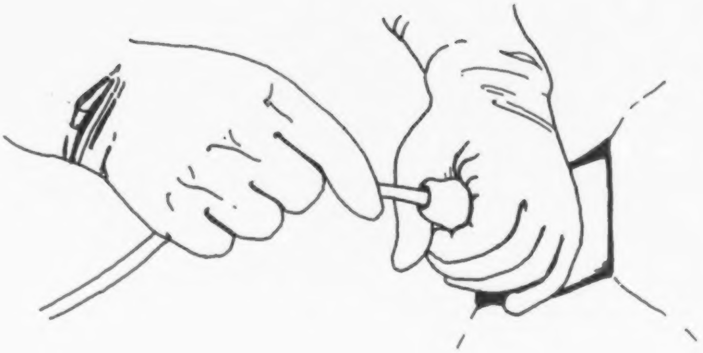
Teamwork/ Cooperative Skills

- Give/receive feedback

Job Acquisition/ Development Skills

- Master specific job task/procedure
- Practice good work habits/attitudes
- Deal effectively with customers/clients

	Yes	No
9. Remove the sterile catheter from the tray. Be careful not to touch the cotton balls when removing sterile catheter.	_____	_____
10. Inflate the balloon with specified solution to test balloon, then draw solution back into syringe for use later in procedure.	_____	_____
11. Lubricate the tip of the catheter.	_____	_____
NOTE: Be sure to assess the patient's reaction to iodine before cleaning the patient's glans penis with betadine solution.	_____	_____
12. Wash the patient's glans penis around the urinary meatus with betadine solution. Use a cotton ball held in forceps, and clean in a circular motion from the tip of the glans to the outside. Use one cotton ball for each complete circle, then properly discard the contaminated cotton ball. Keep the patient's foreskin retracted with one hand. Remember, the nurse's hand holding the penis is contaminated and should not touch any sterile equipment.	_____	_____
13. Hold the patient's penis straight up to aid in inserting the catheter.	_____	_____
14. With sterile hand, pick up the catheter from the tray. Hold the catheter three to four inches from its tip.	_____	_____
15. Insert the catheter into the patient's urinary meatus, using gentle, constant pressure.	_____	_____



INSERTING MALE CATHETER

	Yes	No
NOTE: A resistance to catheter insertion may be encountered at the prostate area. Pause for a moment for the patient's sphincter to relax, and proceed with gentle, even pressure. If unable to insert catheter past the patient's prostate area, notify the charge nurse or doctor.		
16. Continue inserting the catheter into the patient for about six to eight inches, or until urine is seen in the catheter tubing.	____	____
17. Continue to advance the catheter along the patient's urethra to bladder to avoid inflating the balloon in the proximal urethra area. Damage to the patient's urethra could occur if the balloon is inflated in the proximal urethra area.	____	____
18. Inflate the balloon with the correct amount of sterile saline solution; e.g. normally about 10cc.	____	____
19. When draining the patient's bladder, never drain more than 800-1000cc. After draining 800-1000cc of urine from the patient's bladder, clamp the catheter.	____	____

Yes No

CAUTION: If the catheter is clamped, always remember to unclamp it.

---

20. Gently tug on the catheter to make sure it is correctly positioned in the patient's bladder. ______ ______

CAUTION: If the patient is uncircumcised, pull the foreskin back down to its normal position. Failure to reposition the foreskin could result in the patient requiring emergency surgery.

---

21. Dispose of all waste according to biohazardous waste policy. Clean the area around the patient's meatus. ______ ______
22. Tape the catheter tubing to the patient's thigh to prevent stress on the catheter when the patient moves. ______ ______
23. Wash hands. ______ ______

Evaluation

1. Verify that the Foley catheter is patent and draining urine. ______ ______
2. Verify that catheter tubing is securely taped to the patient's thigh. ______ ______
3. Verify that sterile technique was maintained throughout the catheterization procedure. ______ ______

Documentation

1. Time of the catheterization procedure. ______ ______
2. Size of the catheter used. ______ ______

	Yes	No
3. Amount of the patient's urine immediately returned.	_____	_____
4. Balloon was inflated and the amount of solution used to inflate it.	_____	_____
5. Color and consistency of the patient's urine.	_____	_____
6. Patient's response to the catheterization procedure.	_____	_____

(End of Job Sheet)

SKILL TEST RECORD

EVALUATOR'S COMMENTS

____

____

____

PRODUCT EVALUATION

Evaluator note: Rate the student on the following criteria by circling the appropriate numbers. Each criterion must receive a rating of "3" or higher to demonstrate student mastery. (See Performance Evaluation Key.) A student who is unable to demonstrate mastery should review the material and submit another product for evaluation.

Criteria:				
Checked doctor's order	4	3	2	1
Identified patient and explained procedure	4	3	2	1
Gathered all equipment and supplies	4	3	2	1
Provided for patient's privacy	4	3	2	1
Placed patient in correct position	4	3	2	1
Washed hands and put on gloves	4	3	2	1

Opened catheter tray using sterile technique	4	3	2	1
Prepared inside of tray without contaminating contents	4	3	2	1
Used forceps in tray to cleanse patient	4	3	2	1
Cleansed patient as instructed	4	3	2	1
Placed catheter without contamination	4	3	2	1
If uncircumcised, returned foreskin to proper position	4	3	2	1
Taped clear catheter tubing to thigh	4	3	2	1
Discarded equipment and supplies according to hospital policy	4	3	2	1
Correctly documented procedure	4	3	2	1

EVALUATOR'S COMMENTS

AVERAGE RATING

Evaluator note: To obtain an average rating for the Competency Profile, total the designated points in "Product Evaluation" and divide by the total number of criteria. Circle the rating on the "Performance Evaluation Key" below.

PERFORMANCE EVALUATION KEY

4 **Skilled** – Can perform job with no additional training
3 **Moderately Skilled** – Has performed job during training program; limited additional training may be required
2 **Limited Skill** – Has performed job during training program; additional training is required to develop skill
1 **Unskilled** – Is familiar with process, but is unable to perform job

JOB SHEET 4

PROVIDING CARE FOR THE POSTOPERATIVE PATIENT

VIII

Name ______________________ Score __________

OBJECTIVE 21

Apply the principles of sterile technique in dressing changes.

INTRODUCTION

All postoperative dressing changes should be completed using sterile technique. Sterile dressings are placed to promote healing of the incision and to prevent infection. After several days, many surgeons leave the incision intact without a dressing, but some patients request a dressing be left in place for psychological reasons.

EQUIPMENT AND SUPPLIES

Sterile Dressing Change

- Sterile gloves
- Dressing set
  - Scissors
  - Gauze
  - Cleaning solution
  - Drape
  - Sterile dressings
  - Forceps
  - Adhesive tape
  - Isolation gown (according to hospital policy)

Unsterile Dressing

- Plastic bag or trash container
- Gloves to remove old dressing and tape

PROCEDURE

Functional Reading Skills
- Interpret forms and records
- Follow written instructions

Functional Writing Skills
- Complete forms and records

Life Science Skills
- Investigate/apply principles of anatomy/physiology
- Investigate health issues (medical, ergonomic, nutrition, mental health)

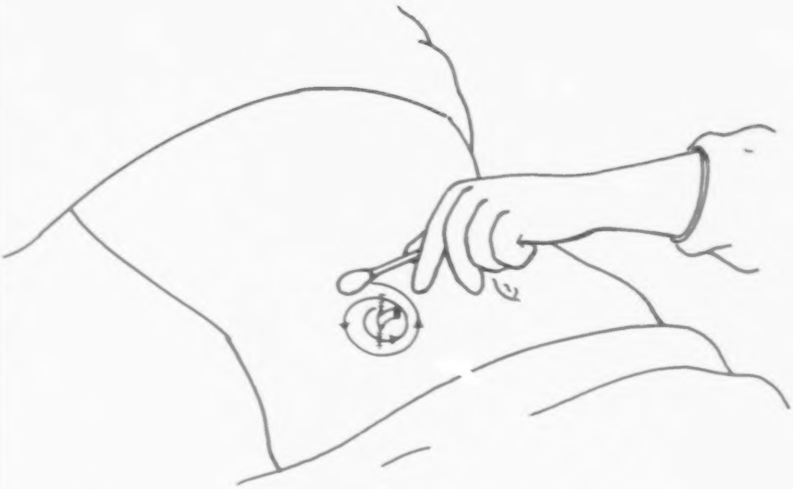
Interactive Communication Skills
- Communicate with clients/customers

General Relating Skills
- Interact with clients/customers/patients

Job Acquisition/Development Skills
- Master specific job task/procedure
- Practice good work habits/attitudes

	Yes	No
Assessment and Analysis		
1. Check the doctor's order for the patient. Some doctors will not allow nursing staff to change dressings, especially the first time the dressing needs changing.	_____	_____
2. Check on the prescribed solution used for cleaning the wound, if any is ordered.	_____	_____
3. Identify the patient and explain the dressing change procedure.	_____	_____
Planning		
1. If the procedure is painful for the patient, medicate the patient before beginning the procedure.	_____	_____
2. Assemble all needed equipment and supplies.	_____	_____
3. Provide for the patient's privacy.	_____	_____
4. Position the patient in the correct position, e.g., usually supine.	_____	_____
Implementation		
1. Wash hands.	_____	_____
2. Arrange sterile drapes on a table or other firm surface in the patient's room.	_____	_____
3. Open sterile equipment and lay out the equipment on the drape.	_____	_____
4. Pour the sterile solution into its designated container.	_____	_____
5. Put on clean gloves.	_____	_____
6. Holding the patient's old dressing, remove tape slowly and gently.	_____	_____

	Yes	No
7. Remove the tape by pulling in the direction of the patient's hair growth.	_____	_____
NOTE: If unable to remove the tape from the patient in the manner described in Step 8, solvents are available to help loosen adhesive.	_____	_____
8. Remove the patient's top dressing gently.	_____	_____
NOTE: If the dressing adheres to the wound, sterile saline solution can help to loosen the dressing and prevent pain.	_____	_____
9. Observe type and measure volume of drainage on dressing.	_____	_____
10. Dispose of the old dressing properly.	_____	_____
11. Observe the patient's wound site.	_____	_____
12. Remove contaminated gloves.	_____	_____
13. Wash hands.	_____	_____
14. Put on sterile gloves.	_____	_____
15. Use forceps and gauze to clean incision area. Begin at the top of the incision and make one sweeping motion to the bottom of the incision. After each swipe, properly dispose of contaminated gauze and use a new, sterile gauze to continue cleaning. If cleaning a drain site, clean in a circular motion, starting in the center and working outward. After each circle, properly dispose of contaminated gauze and continue cleaning with a new, sterile gauze.	_____	_____

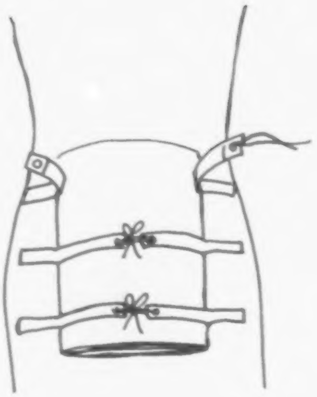


CLEANING INCISION

NOTE: Not all surgeons allow cleaning the incision area. Many prefer placing a sterile dressing, without cleaning. Be sure to assess the patient for iodine allergies before cleaning with betadine solution, if ordered.

		Yes	No
16.	Place sterile dressing over the patient's incision area.	____	____
17.	Tape the dressing to the patient, using as little tape as possible.	____	____

NOTE: If frequent dressing changes are needed, Montgomery straps can be used to prevent irritation caused by frequently removing and replacing tape.



MONTGOMERY STRAP

Yes No

18. Properly discard any unused solution or dressing. _____ _____

    NOTE: Once dressings and solution have been opened they cannot be used later, as they are considered unsterile.

19. Remove gloves, mask, and goggles. _____ _____

20. Dispose of all waste using biohazardous waste policy. _____ _____

21. Provide for the patient's comfort. _____ _____

22. Remove old dressing and other trash from the patient's room. _____ _____

Evaluation

Verify that the sterile dressing change has been completed without contamination. _____ _____

Documentation

1. Time of patient's dressing change. _____ _____

2. Appearance and condition of the patient's incision. _____ _____

	Yes	No
3. Color, odor, and consistency of the patient's drainage.	____	____
4. Patient's response to the dressing change procedure.	____	____

(End of Job Sheet)

SKILL TEST RECORD

EVALUATOR'S COMMENTS

____

____

____

PRODUCT EVALUATION

Evaluator note: Rate the student on the following criteria by circling the appropriate numbers. Each criterion must receive a rating of "3" or higher to demonstrate student mastery. (See Performance Evaluation Key.) A student who is unable to demonstrate mastery should review the material and submit another product for evaluation.

Criteria:				
Checked doctor's order	4	3	2	1
Identified patient and explained procedure	4	3	2	1
Gathered all equipment and supplies	4	3	2	1
Provided for patient's privacy	4	3	2	1
Placed patient in correct position	4	3	2	1
Washed hands and put on gloves	4	3	2	1
Medicated patient if necessary	4	3	2	1
Removed soiled dressing and discarded it according to hospital policy	4	3	2	1

Put on sterile gloves	4	3	2	1
Changed dressing using sterile gloves	4	3	2	1
Discarded equipment and supplies according to hospital procedure	4	3	2	1
Correctly documented procedure	4	3	2	1

EVALUATOR'S COMMENTS

____

____

____

AVERAGE RATING

Evaluator note: To obtain an average rating for the Competency Profile, total the designated points in "Product Evaluation" and divide by the total number of criteria. Circle the rating on the "Performance Evaluation Key" below.

PERFORMANCE EVALUATION KEY

4 **Skilled** – Can perform job with no additional training
3 **Moderately Skilled** – Has performed job during training program; limited additional training may be required
2 **Limited Skill** – Has performed job during training program; additional training is required to develop skill
1 **Unskilled** – Is familiar with process, but is unable to perform job

JOB SHEET 5

PROVIDING CARE FOR THE POSTOPERATIVE PATIENT

VIII

Name ______________________ Score __________

OBJECTIVE 22

Care for the patient with plastic suction devices.

INTRODUCTION

Care and maintenance of plastic suction devices is important to keeping them operational. These devices provide drainage from a wound site. Suction devices are used to drain fluid and debris from the wound site by providing suction. Dark, moist areas, such as wounds under dressings, increase the chance of developing infections. Aseptic techniques are important in the care and maintenance of plastic suction devices. Independent wound suction devices provide constant, even, gentle suction; wall suction units are used for copiously draining wounds.

EQUIPMENT AND SUPPLIES

- Portable wound suction unit
- Suction devices
- Irrigation syringe, if irrigation is necessary
- Sterile gloves
- Measuring container

PROCEDURE

	Yes	No
Assessment and Analysis		
1. Check the doctor's orders for patient.	_____	_____
2. Identify the patient and explain the suction procedure.	_____	_____
Planning	_____	_____
1. Assemble all needed euiqpment and supplies.	_____	_____
2. Provide for the patient's privacy.	_____	_____
3. Position patient for access to the suction device.	_____	_____

Functional Reading Skills
- Interpret forms and records
- Follow written instructions

Functional Writing Skills
- Complete forms and records

Math Application Skills
- Use English and metric measures

Functional Math Skills
- Make measurements

Life Science Skills
- Investigate/apply principles of anatomy/physiology
- Investigate health issues (medical, ergonomic, nutrition, mental health)

Interactive Communication Skills
- Communicate with clients/customers

General Relating Skills
- Interact with clients/customers/patients

Job Acquisition/Development Skills
- Master specific job task/procedure
- Practice good work habits/attitudes

Implementation	Yes	No
1. Wash hands.	____	____
2. Put on sterile gloves.	____	____
3. Remove the plug cap from the suction device, using aseptic technique.	____	____
4. Pour drainage into measuring container.	____	____
5. Place suction device in upright position.	____	____
6. Compress the suction unit.	____	____
7. Replace the plug cap securely on the suction device.	____	____
8. Secure the suction tube to the patient's dressing, if necessary.	____	____
NOTE: Some nurses prefer to pin the Jackson Pratt drain bulb to the patient's gown to keep it from pulling out when the patient ambulates. Pinning the bulb to the patient's dressing may be better in cases where the patient or family members may remove the gown.		
9. Accurately measure the amount of drainage.	____	____
10. Dispose of all waste according to biohazardous waste policy.	____	____
11. Rinse out the measuring container.	____	____
12. Remove gloves.	____	____
13. Wash hands.	____	____
14. Properly reposition the patient.	____	____
15. Caution the patient not to rest on the suction tubing or suction device.	____	____

Evaluation	Yes	No
1. Verify that the suction device has been emptied.	____	____
2. Verify that negative pressure has been placed on the suction device.	____	____

Documentation

	Yes	No
1. Type and amount of the patient's drainage.	____	____
2. Odor of the patient's drainage.	____	____
3. Patient's suction system is working properly.	____	____

NOTE: Always chart that negative pressure was placed on the suction device. Make sure the suction cap was properly replaced to maintain negative pressure. Many times the suction is lost when the suction cap is not replaced or comes loose; the last nurse who performed the procedure is responsible for correctly replacing the suction cap.

	Yes	No
4. Assessment of the patient's skin condition around the drain site and during the dressing change.	____	____
5. Patient's response to the procedure and any teaching or advice given to the patient.	____	____

(End of Job Sheet)

SKILL TEST RECORD

EVALUATOR'S COMMENTS

____

____

____

PRODUCT EVALUATION

Evaluator note: Rate the student on the following criteria by circling the appropriate numbers. Each criterion must receive a rating of "3" or higher to demonstrate student mastery. (See Performance Evaluation Key.) A student who is unable to demonstrate mastery should review the material and submit another product for evaluation.

Criteria:

Checked doctor's order	4	3	2	1
Identified patient and explained procedure	4	3	2	1
Gathered all equipment and supplies	4	3	2	1
Washed hands and put on gloves	4	3	2	1
Emptied suction device in measurement receptacle as ordered	4	3	2	1
Replaced negative pressure to suction device	4	3	2	1
Removed gloves and repositioned patient	4	3	2	1
Discarded equipment and supplied according to hospital policy	4	3	2	1
Correctly documented procedure	4	3	2	1

EVALUATOR'S COMMENTS

____

____

____

AVERAGE RATING

Evaluator note: To obtain an average rating for the Competency Profile, total the designated points in "Product Evaluation" and divide by the total number of criteria. Circle the rating on the "Performance Evaluation Key" below.

PERFORMANCE EVALUATION KEY

4 **Skilled** – Can perform job with no additional training
3 **Moderately Skilled** – Has performed job during training program; limited additional training may be required
2 **Limited Skill** – Has performed job during training program; additional training is required to develop skill
1 **Unskilled** – Is familiar with process, but is unable to perform job

JOB SHEET 6 — PROVIDING CARE FOR THE POSTOPERATIVE PATIENT — VIII

Name ______________________ Score __________

OBJECTIVE 23 **Remove surgical sutures.**

INTRODUCTION

Surgeons place sutures to close an incision. Sutures are popular for small wounds, e.g., after minor accidents and for some surgical wounds. Major surgical wounds are usually closed with staples. The length of time a surgeon leaves sutures in a patient varies with the type of surgery. For most surgeries, sutures stay in place up to five days. Some sutures dissolve as the wound heals so that they do not need to be removed.

EQUIPMENT AND SUPPLIES

- Suture removal kit
- Alcohol preps
- Scissors
- Sterile dressing or steri strips
- Sterile gloves

PROCEDURE

Assessment and Analysis	Yes	No
1. Check the doctor's orders for the patient.	_____	_____
2. Identify the patient and explain the suture removal procedure.	_____	_____
Planning		
1. Medicate the patient before the procedure, if necessary.	_____	_____
2. Assemble the equipment.	_____	_____
3. Provide for the patient's privacy.	_____	_____
4. Position the patient correctly for the procedure.	_____	_____

Functional Reading Skills
- Interpret forms and records
- Follow written instructions

Functional Writing Skills
- Complete forms and records

Life Science Skills
- Investigate/apply principles of anatomy/physiology
- Investigate health issues (medical, ergonomic, nutrition, mental health)

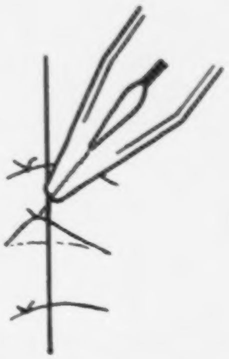
Listening Skills
- Apply active listening skills

Interactive Communication Skills
- Communicate with clients/customers

General Relating Skills
- Interact with clients/ customers/patients

Job Acquisition/ Development Skills
- Master specific job task/procedure
- Practice good work habits/attitudes
- Deal effectively with customers/clients

Implementation	Yes	No
1. Wash hands.	____	____
2. Put on sterile gloves.	____	____
3. Clean the patient's suture area with alcohol.	____	____
4. Clean the patient's suture area with hydrogen peroxide if dried blood is present in the suture area.	____	____
5. Remove the forceps from the suture removal kit.	____	____
6. Grasp the suture knot with the forceps and pull up gently.	____	____
7. Cut the suture, using scissors, as close to the patient's skin as possible.	____	____
8. Remove the suture by gently pulling on the knot with the forceps.	____	____



REMOVING SUTURES

9. Clean the patient's suture area with the hospital-approved aneseptic agent.	____	____
10. Observe the patient's suture area for bleeding or discharge.	____	____
11. Make sure that all sutures are removed from the patient's incision area.	____	____

Yes No

12. Place a sterile dressing or steri strips across the patient's incision area to provide wound support. _____ _____

13. Dispose of all waste according to biohazardous waste policy. _____ _____

14. Remove gloves. _____ _____

15. Wash hands. _____ _____

16. Provide for the patient's comfort. _____ _____

Evaluation

Verify that all the patient's sutures have been removed and the patient's incision is intact and reinforced with steri strips or dressing. _____ _____

Documentation

1. Removal of the patient's sutures. _____ _____

2. Condition of the patient's incision. _____ _____

3. Placement of steri strips or dressings on the patient's incision. _____ _____

4. Patient's response to the suture removal procedure. _____ _____

(End of Job Sheet)

SKILL TEST RECORD

EVALUATOR'S COMMENTS

____

____

____

PRODUCT EVALUATION

Evaluator note: Rate the student on the following criteria by circling the appropriate numbers. Each criterion must receive a rating of "3" or higher to demonstrate student mastery. (See Performance Evaluation Key.) A student who is unable to demonstrate mastery should review the material and submit another product for evaluation.

Criteria:				
Checked doctor's order	4	3	2	1
Identified patient and explained procedure	4	3	2	1
Medicated patient if necessary	4	3	2	1
Gathered all equipment and supplies	4	3	2	1
Provided for patient's privacy	4	3	2	1
Placed patient in correct position	4	3	2	1
Washed hands and put on gloves	4	3	2	1
Removed sutures correctly	4	3	2	1
Placed steri strips if ordered	4	3	2	1
Discarded equipment and supplies according to hospital policy	4	3	2	1
Correctly documented procedure	4	3	2	1

EVALUATOR'S COMMENTS

____

____

____

AVERAGE RATING

Evaluator note: To obtain an average rating for the Competency Profile, total the designated points in "Product Evaluation" and divide by the total number of criteria. Circle the rating on the "Performance Evaluation Key" below.

PERFORMANCE EVALUATION KEY

4 **Skilled** – Can perform job with no additional training
3 **Moderately Skilled** – Has performed job during training program; limited additional training may be required
2 **Limited Skill** – Has performed job during training program; additional training is required to develop skill
1 **Unskilled** – Is familiar with process, but is unable to perform job

JOB SHEET 7

PROVIDING CARE FOR THE POSTOPERATIVE PATIENT

VIII

Name ______________________ Score __________

OBJECTIVE 24

Remove surgical staples.

INTRODUCTION

Surgeons often use staples to close major surgical incisions. Placing staples is less time-consuming during surgery. The nurse's duties include removing staples after surgery when the surgeon determines it is time for them to be removed.

EQUIPMENT AND SUPPLIES

- Staple removal kit
- Sterile gloves
- Alcohol preps
- Steri strips or dressing

PROCEDURE

Functional Reading Skills
- Gain factual information
- Interpret forms and records
- Follow written instructions

Functional Writing Skills
- Complete forms and records

Life Science Skills
- Investigate/apply principles of anatomy/physiology
- Investigate health issues (medical, ergonomic, nutrition, mental health)

Assessment and Analysis	Yes	No
1. Check the doctor's orders for the patient.	____	____
2. Identify the patient and explain the procedure for removing surgical staples.	____	____
Planning		
1. Medicate the patient before the staple removal procedure, if necessary.	____	____
2. Assemble the needed equipment and supplies.	____	____
3. Provide for the patient's privacy.	____	____
4. Position the patient correctly for the procedure.	____	____
Implementation		
1. Wash hands.	____	____
2. Put on sterile gloves.	____	____
3. Clean the patient's incision and staple area with alcohol.	____	____

General Relating Skills
- Interact with clients/ customers/patients

Job Acquisition/ Development Skills
- Master specific job task/procedure
- Practice good work habits/attitudes
- Deal effectively with customers/clients

	Yes	No
4. Remove staple remover from staple removal kit.	_____	_____
5. Position staple remover with double-toothed edge under center of staple.	_____	_____
6. Squeeze the staple remover handle.	_____	_____
7. Remove staple from the patient's skin gently.	_____	_____
8. Place steri strips or dressing over the patient's incision area.	_____	_____
9. Dispose of all waste according to biohazardous waste policy.	_____	_____
10. Remove sterile gloves.	_____	_____
11. Wash hands.	_____	_____
12. Provide for the patient's comfort.	_____	_____
Evaluation		
Verify that all staples have been removed from the patient's incision and the patient's incision is intact and reinforced with steri strips or dressing.	_____	_____
Documentation		
1. Removal of the patient's staples.	_____	_____
2. Condition of the patient's incision.	_____	_____
3. Placement of steri strips or dressing on the patient's incision.	_____	_____
4. Patient's response to the staple removal procedure.	_____	_____

(End of Job Sheet)

SKILL TEST RECORD

EVALUATOR'S COMMENTS

PRODUCT EVALUATION

Evaluator note: Rate the student on the following criteria by circling the appropriate numbers. Each criterion must receive a rating of "3" or higher to demonstrate student mastery. (See Performance Evaluation Key.) A student who is unable to demonstrate mastery should review the material and submit another product for evaluation.

Criteria:

Checked doctor's order	4	3	2	1
Identified patient and explained procedure	4	3	2	1
Gathered all equipment and supplies	4	3	2	1
Provided for patient's privacy	4	3	2	1
Washed hands and put on gloves	4	3	2	1
Removed staples	4	3	2	1
Placed steri strips, if ordered	4	3	2	1
Discarded equipment and supplies according to hospital policy	4	3	2	1
Correctly documented procedure	4	3	2	1

EVALUATOR'S COMMENTS

AVERAGE RATING

Evaluator note: To obtain an average rating for the Competency Profile, total the designated points in "Product Evaluation" and divide by the total number of criteria. Circle the rating on the "Performance Evaluation Key" below.

PERFORMANCE EVALUATION KEY

4 **Skilled** – Can perform job with no additional training

3 **Moderately Skilled** – Has performed job during training program; limited additional training may be required

2 **Limited Skill** – Has performed job during training program; additional training is required to develop skill

1 **Unskilled** – Is familiar with process, but is unable to perform job

JOB SHEET 8	PROVIDING CARE FOR THE POSTOPERATIVE PATIENT	VIII

Name ______________________ Score __________

OBJECTIVE 25 **Care for a patient's deep wound.**

INTRODUCTION

A patient's deep wound may be packed several times a day. Packing a deep wound consists of placing sterile, moist gauze in the wound, then covering it with a dry, sterile dressing. When removing the old dressing, the old packing is moistened with normal saline to aid in removal. Many doctors order the packing to act as a debrider; every time the packing is removed, dead tissue in the wound is also removed.The packing and debriding procedure can be painful for the patient; therefore, the patient might need medication before the nurse performs the procedure.

EQUIPMENT AND SUPPLIES

- Irrigating solution
- 4x4 sterile gauze pads
- Basin
- Scissors
- Forceps
- Bed protector
- Ointment (if ordered by doctor)
- Nonsterile gloves
- Tape
- Sterile gloves, mask, and goggles
- Packing (if ordered by doctor)

PROCEDURE

Functional Reading Skills
- Gain factual information
- Interpret forms and records
- Follow written instructions

Functional Writing Skills
- Complete forms and records

Life Science Skills
- Investigate/apply principles of anatomy/physiology
- Investigate health issues (medical, ergonomic, nutrition, mental health)

General Relating Skills
- Interact with clients/customers/patients

Job Acquisition/Development Skills
- Master specific job task/procedure
- Practice good work habits/attitudes
- Deal effectively with customers/clients

Assessment and Analysis — Yes — No

1. Check the doctor's orders for the patient. _____ _____
2. Identify the patient and explain the procedure for caring for a wound. _____ _____

Planning

1. Assemble all equipment necessary to perform procedure. _____ _____
2. Medicate the patient for pain before starting deep wound care, if necessary. _____ _____
3. Provide for the patient's provacy, if necessary. _____ _____
4. Place bed protector under the patient. _____ _____
5. Position the patient correctly for deep wound care procedure. _____ _____

Implementation

1. Wash hands _____ _____
2. Put on nonsterile gloves, mask, and goggles. _____ _____
3. Remove old dressing from the patient's wound. _____ _____

   NOTE: The patient's old dressing can be removed easier by moistening the dressing with NSS solution before removal; however, the doctor might not want much moisture applied, so that removing the dressing will act as a debrider of the patient's wound. _____ _____

4. Remove the packing from the patient's wound. _____ _____
5. Dispose of contaminated dressings and packing according to biohazardous waste policy. _____ _____
6. Remove nonsterile gloves, wash hands and put on sterile gloves. _____ _____

	Yes	No
7. Irrigate the patient's wound with the solution ordered by the doctor.	____	____
8. Irrigate from top to bottom of wound area.	____	____
NOTE: Do not touch the patient's wound area with the irrigating bottle or, if used, the bulb syringe.		
9. Rinse the patient's wound area using sterile solution or the solution ordered by the doctor.	____	____
10. Rinse the patient's wound area well to thoroughly rinse out the solution.	____	____
11. Dry the patient's wound area with gauze pads. Work from the top to the bottom, patting gently.	____	____
12. Discard the gauze pads used to dry the patient's wound.	____	____
13. Soak sterile packing in NS solution, betadine, or other solution as ordered by doctor.	____	____
NOTE: The type of packing placed in the patient's wound will depend on hospital policy and the doctor's orders. Some doctors prefer a fluff dressing for packing, while others prefer a kling packed in place.		
14. Place packing inside the patient's wound. Use sterile forceps to handle and place the packing in the patient's wound.	____	____
15. Continue placing packing in the patient's wound until the wound area is filled.	____	____
16. Cover the packing with an outer sterile dressing.	____	____
	____	____

Yes No

17. Tape the outer sterile dressing in place using proper taping technique. ____ ____

NOTE: If gloves are saturated with solution, change to a new pair of gloves before taping the outer dressing in place. Solution on the tape adhesive will prevent adhesion to the patient's skin. ____ ____

18. Remove gloves, mask, and goggles. ____ ____

19. Dispose of all materials according to biohazardous waste policy. ____ ____

Evaluation

1. Verify that the patient's wound has been irrigated and packed using sterile technique. ____ ____

2. Verify that the patient's outer wound dressing is dry and intact. ____ ____

Documentation

1. Appearance and condition of the patient's wound. ____ ____

2. Appearance and odor of any drainage from the patient's wound. ____ ____

3. Type of irrigating solution used to irrigate the patient's wound. ____ ____

4. Patient's response to the deep wound care procedure. ____ ____

(End of Job Sheet)

SKILL TEST RECORD

EVALUATOR'S COMMENTS ____

____

____

PRODUCT EVALUATION

Evaluator note: Rate the student on the following criteria by circling the appropriate numbers. Each criterion must receive a rating of "3" or higher to demonstrate student mastery. (See Performance Evaluation Key.) A student who is unable to demonstrate mastery should review the material and submit another product for evaluation.

Criteria:				
Checked doctor's order	4	3	2	1
Identified patient and explained procedure	4	3	2	1
Medicated patient if needed	4	3	2	1
Gathered all equipment and supplies	4	3	2	1
Washed hands	4	3	2	1
Put on nonsterile gloves, mask and goggles as needed	4	3	2	1
Removed old dressings	4	3	2	1
Washed hands and put on sterile gloves	4	3	2	1
Irrigated wound as ordered	4	3	2	1
Placed sterile dressing without contaminating wound	4	3	2	1
Discarded all equipment and materials according to hospital policy	4	3	2	1
Correctly documented procedure	4	3	2	1

EVALUATOR'S COMMENTS

AVERAGE RATING

Evaluator note: To obtain an average rating for the Competency Profile, total the designated points in "Product Evaluation" and divide by the total number of criteria. Circle the rating on the "Performance Evaluation Key" below.

PERFORMANCE EVALUATION KEY		
	4	**Skilled** — Can perform job with no additional training
	3	**Moderately Skilled** — Has performed job during training program; limited additional training may be required
	2	**Limited Skill** — Has performed job during training program; additional training is required to develop skill
	1	**Unskilled** — Is familiar with process, but is unable to perform job

JOB SHEET 9	***PROVIDING CARE FOR THE POSTOPERATIVE PATIENT*** **VIII**

Name ______________________ Score __________

OBJECTIVE 26 **Insert a nasogastric tube.**

INTRODUCTION

Nasogastric (NG) tubes are placed in patients for various reasons, such as to remove fluids and gases from the patient's gastrointestinal tract, and as a route for administering medications or nutrients. NG tubes are often placed in the patient before, during, and after surgery. NG tubes range in size, and the size of the NG tube used for a particular patient depends upon the type of surgery, the size of the patient, and the length of time the NG tube will be left in place.

EQUIPMENT AND SUPPLIES

- Towel
- Nasogastric tube (12-18fr)
- Emesis basin
- Gloves
- Glass of water and a straw (if the patient is conscious)
- Adhesive tape
- Irrigating set with syringe (50-60cc)
- Stethoscope
- Water-soluble lubricant
- Tissue
- Catheter plug
- Safety pin

PROCEDURE

Functional Reading Skills
- Gain factual information
- Interpret forms and records
- Follow written instructions

Functional Writing Skills
- Complete forms and records

Math Application Skills
- Use English and metric measures

Functional Math Skills
- Make measurements

Life Science Skills
- Investigate/apply principles of anatomy/physiology
- Investigate health issues (medical, ergonomic, nutrition, mental health)

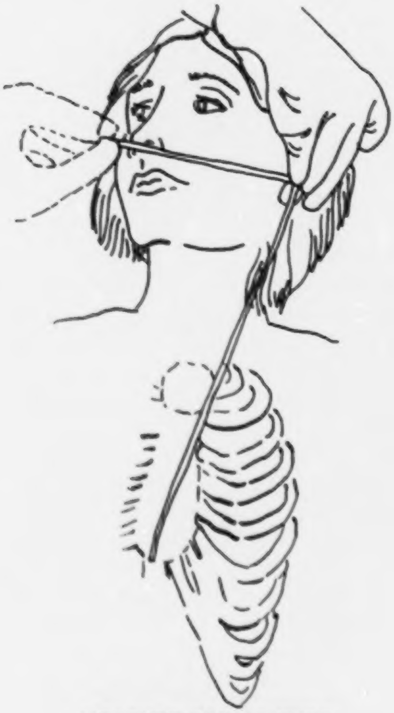
Interactive Communication Skills
- Communicate with clients/customers

	Yes	No
Assessment and Analysis		
1. Check the doctor's orders for the patient.	_____	_____
2. Identify the patient and explain the procedure for inserting a nasogastric tube.	_____	_____
Planning		
1. Assemble all needed equipment and supplies.	_____	_____
2. Provide for the patient's privacy.	_____	_____
3. Position the patient in the Fowler's position.	_____	_____
4. Place a towel across the patient's chest.	_____	_____
Implementation		
1. Wash hands	_____	_____
2. Put on gloves.	_____	_____
3. Check air flow through the patient's nostrils. The NG tube should be inserted into the nostril with better air flow.	_____	_____
4. Measure the distance the NG tube is to be inserted into the patient. The measurement is from the tip of the patient's ear to the tip of the nose to the xiphoid. This measurement is called the NEX (nose-ear-xiphoid).	_____	_____

NOTE: Studies now indicate the exact placement is the measurement between the NEX measurement and the 50cm marking on tubing to be exact.

General Relating Skills
- Interact with clients/ customers/patients

Job Acquisition/ Development Skills
- Master specific job task/procedure
- Practice good work habits/attitudes
- Deal effectively with customers/clients



MEASURE FOR NG TUBE

Yes No

5. Mark the placement measurement on the NG tube with a piece of tape. _____ _____

6. Lubricate the tip of the NG tube. Lubricant should be placed from the tip along the NG tube. _____ _____

   NOTE: See manufacturer's suggestions. (e.g., sterile saline or K-Y lubricant)

	Yes	No
7. Insert the NG tube in the patient's nostril.	____	____

INSERTING NG TUBE

8. Hyperextend the patient's head while inserting the first part of the NG tube into the patient's nostril.	____	____
9. Press the NG tube gently downward and toward the patient.	____	____
10. When the NG tube reaches the patient's oropharynx, flex the patient's head forward.	____	____
11. Encourage the patient to take several sips of water from a glass with a straw.	____	____

⚠ **CAUTION:** If the patient starts to gag, stop advancing the NG tube for a moment and allow the patient to rest.

---

12. Advance the NG tube down the patient's esophagus with each swallow of water the patient takes.	____	____

Yes No

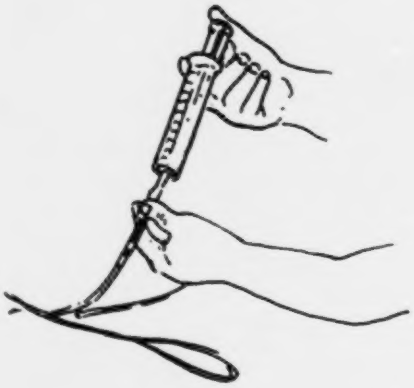
CAUTION: If the patient coughs or chokes, this could mean the NG tube has gone into the patient's trachea. If the NG tube goes into the patient's trachea, the nurse must completely remove the tube and begin the procedure again.

13. Insert the tube into the patient until reaching the measurement mark. _____ _____

14. Check for correct placement of the NG tube in the patient's stomach in the following ways:

    a. Aspirate the patient's stomach contents by using a syringe connected to the NG tube. _____ _____

    b. Inject 10-20cc of air into the NG tube with an irrigating syringe, while listening with the stethoscope placed over the patient's stomach. The air makes a "swoosh" sound as it enters the patient's stomach. _____ _____



INJECTING AIR IN NG TUBE

    c. X-ray verification as indicated for feeding or medication. _____ _____

Yes No

CAUTION: Weighted intestinal tubes should not be taped in place.

---

15. Split a length of adhesive tape lengthwise for about 1/2 its length. ____ ____

16. Wrap the split ends of the adhesive tape around the NG tube, and attach the other end of the adhesive tape to the patient's nose. ____ ____

17. Secure the NG tube to the patient's nose with adhesive tape. ____ ____

18. Connect the NG tube to suction, if ordered, or plug the tube with a catheter plug. ____ ____

19. Pin the NG tubing to the patient's gown. ____ ____

CAUTION: When removing the patient's soiled gown, remove the pin holding the NG tube to the gown.

---

20. Dispose of all waste used according to biohazardous waste policy. ____ ____

21. Remove gloves. ____ ____

22. Wash hands. ____ ____

23. Provide for the patient's comfort. ____ ____

CAUTION: Always check the placement of the patient's NG tube, using one of the techniques described in Step 15, before administering fluids, medications, or tube feedings.

Evaluation	Yes	No
1. Verify that the patient's NG tube is correctly placed.	_____	_____
2. Verify that patient's gastric contents returned after placement of the NG tube.	_____	_____
Documentation		
1. Time the procedure was performed.	_____	_____
2. Size of the NG tube used for the patient.	_____	_____
3. Patient's naris (nostril) used to insert the NG tube.	_____	_____
4. Method used to verify the correct placement of the NG tube in the patient's stomach.	_____	_____
5. Color of fluids aspirated by the patient's NG tube.	_____	_____
6. Patency of the NG tube and any connections.	_____	_____
7. Type of suction applied to the patient's NG tube, e.g., continuous or intermittent suction.	_____	_____
8. NG tube feedings ordered by the doctor.	_____	_____
9. Patient's response to placement of the NG tube.	_____	_____

(End of Job Sheet)

SKILL TEST RECORD

EVALUATOR'S COMMENTS

____

____

____

PRODUCT EVALUATION

Evaluator note: Rate the student on the following criteria by circling the appropriate numbers. Each criterion must receive a rating of "3" or higher to demonstrate student mastery. (See Performance Evaluation Key.) A student who is unable to demonstrate mastery should review the material and submit another product for evaluation.

Criteria:				
Checked doctor's order	4	3	2	1
Identified patient an explained procedure	4	3	2	1
Gathered all equipment and supplies	4	3	2	1
Placed patient in correct position	4	3	2	1
Washed hands and put on gloves	4	3	2	1
Correctly measured for NG tube placement	4	3	2	1
Inserted NG tube correctly	4	3	2	1
Checked for correct placement	4	3	2	1
Taped securely	4	3	2	1
Discard equipment and supplies according to hospital policy	4	3	2	1
Correctly documented procedure	4	3	2	1

EVALUATOR'S COMMENTS

____

____

____

AVERAGE RATING

Evaluator note: To obtain an average rating for the Competency Profile, total the designated points in "Product Evaluation" and divide by the total number of criteria. Circle the rating on the "Performance Evaluation Key" below.

PERFORMANCE EVALUATION KEY

4 **Skilled** – Can perform job with no additional training

3 **Moderately Skilled** – Has performed job during training program; limited additional training may be required

2 **Limited Skill** – Has performed job during training program; additional training is required to develop skill

1 **Unskilled** – Is familiar with process, but is unable to perform job

JOB SHEET 10

PROVIDING CARE FOR THE POSTOPERATIVE PATIENT

VIII

Name ____________________ Score __________

OBJECTIVE 27 **Irrigate a nasogastric tube.**

INTRODUCTION

NG tubes can become obstructed with such things as thick gastric contents. They must be irrigated frequently to maintain patency.

EQUIPMENT AND SUPPLIES

- 50cc irrigating syringe or syringe kit
- NS irrigating solution or solution ordered by doctor
- Stethoscope
- Gloves, mask, and goggles

PROCEDURE

Functional Reading Skills
- Gain factual information
- Interpret forms and records
- Follow written instructions

Functional Writing Skills
- Complete forms and records

Math Application Skills
- Use English and metric measures

Functional Math Skills
- Make measurements

Assessment and Analysis	Yes	No
1. Check the doctor's orders for the patient.	_____	_____
2. Identify the patient and explain the procedure for irrigating the nasogastric tube.	_____	_____
Planning		
1. Assemble the equipment all needed equipment and supplies.	_____	_____
2. Position the patient in a semi-Fowler's position.	_____	_____
Implementation		
1. Wash hands.	_____	_____
2. Put on gloves, mask, and goggles.	_____	_____
3. Disconnect any suction attached to the patient's NG tube.	_____	_____
4. Discontinue any tube feeding through the patient's NG tube.	_____	_____

Life Science Skills

- investigate/apply principles of anatomy/physiology
- Investigate health issues (medical, ergonomic, nutrition, mental health)

Interactive Communication Skills

- Communicate with clients/customers

General Relating Skills

- Interact with clients/customers/patients

Job Acquisition/Development Skills

- Master specific job task/procedure
- Practice good work habits/attitudes
- Deal effectively with customers/clients

Yes No

CAUTION: Do not irrigate or aspirate blue port.

---

5. Check for correct placement of the patient's NG tube by instilling air into the NG tube. Listen with a stethoscope over the patient's stomach for sounds of air entering the patient's stomach. ______ ______
6. Aspirate stomach contents through the NG tube, using a syringe. ______ ______
7. Pour the designated amount of irrigation solution into a container. ______ ______
8. Draw about 30cc of irrigation solution into the syringe. ______ ______
9. Inject 30cc of irrigation solution gently into the patient's NG tube. ______ ______
10. Inject more irrigation solution, if needed, to clean the patient's NG tube completely. ______ ______
11. Aspirate the irrigation solution using the syringe, or reconnect the NG tube to the suction machine. ______ ______
12. Reconnect the patient's NG tube to suction or tube-feeding equipment. ______ ______
13. Observe for patency of the patient's NG tube and any connections. ______ ______
14. Remove gloves, mask, and goggles. ______ ______
15. Dispose of all waste according to biohazardous waste policy. ______ ______
16. Provide for the patient's comfort. ______ ______

Evaluation	Yes	No
1. Verify that the patient's NG tube has been irrigated and is patent.	____	____
2. Verify that suction machine is on correct setting.	____	____
3. Verify that tube feedings have been reinstated.	____	____
Documentation		
1. Time of the NG tube irrigation procedure.	____	____
2. Amount and type of solution used to irrigate the patient's NG tube.	____	____
3. Amount, color, and consistency of irrigation fluid returned when the NG tube was aspirated.	____	____
4. Patient's response to the NG tube irrigation procedure	____	____

(End of Job Sheet)

SKILL TEST RECORD

EVALUATOR'S COMMENTS

____

____

____

PRODUCT EVALUATION

Evaluator note: Rate the student on the following criteria by circling the appropriate numbers. Each criterion must receive a rating of "3" or higher to demonstrate student mastery. (See Performance Evaluation Key.) A student who is unable to demonstrate mastery should review the material and submit another product for evaluation.

Criteria:				
Checked doctor's order	4	3	2	1
Gathered all equipment and supplies	4	3	2	1
Placed patient in proper position	4	3	2	1
Washed hands and put on gloves, mask, and goggles	4	3	2	1
Disconnected from suction machine	4	3	2	1
Checked for correct placement	4	3	2	1
Irrigated NG tube with prescribed solution	4	3	2	1
Discarded equipment and supplies according to hospital policy	4	3	2	1
Correctly documented procedure	4	3	2	1

EVALUATOR'S COMMENTS

____

____

____

AVERAGE RATING

Evaluator note: To obtain an average rating for the Competency Profile, total the designated points in "Product Evaluation" and divide by the total number of criteria. Circle the rating on the "Performance Evaluation Key" below.

PERFORMANCE EVALUATION KEY

4 **Skilled** – Can perform job with no additional training
3 **Moderately Skilled** – Has performed job during training program; limited additional training may be required
2 **Limited Skill** – Has performed job during training program; additional training is required to develop skill
1 **Unskilled** – Is familiar with process, but is unable to perform job

JOB SHEET 11

PROVIDING CARE FOR THE POSTOPERATIVE PATIENT

VIII

Name ______________________________ Score __________

OBJECTIVE 28

Provide nursing care for the patient with a nasogastric tube.

INTRODUCTION

Management of the patient's NG tube is important. NG tubes are uncomfortable for the patient, but nursing interventions can help reduce discomfort. NG tubes irritate the patient's naris and create dry mouth. Proper care of the patient's NG tube must be given after each NG tube feeding. Soiled adhesive tape must be replaced to prevent the patient's NG tube from slipping, and the NG tube must be properly placed at all times.

EQUIPMENT AND SUPPLIES

- Water-soluble lubricant
- Irrigation syringe (50-60cc)
- Irrigation solution
- Sponge swabs
- Mouthwash
- Stethoscope
- Gloves

PROCEDURE

Functional Reading Skills
- Gain factual information
- Interpret forms and records
- Follow written instructions

Functional Writing Skills
- Complete forms and records

Assessment and Analysis	Yes	No
1. Check the doctor's orders for the patient.	_____	_____
2. Identify the patient and explain the procedure for caring for a nasogastric tube.	_____	_____
Planning		
Assemble all needed equipment and supplies.	_____	_____

Math Application Skills
- Use English and metric measures

Functional Math Skills
- Make measurements

Life Science Skills
- Investigate/apply principles of anatomy/physiology
- Investigate health issues (medical, ergonomic, nutrition, mental health)

Interactive Communication Skills
- Communicate with clients/customers

General Relating Skills
- Interact with clients/customers/patients

Job Acquisition/Development Skills
- Master specific job task/procedure
- Practice good work habits/attitudes
- Deal effectively with customers/clients

Implementation	Yes	No
1. Wash hands.		
2. Put on gloves.		
3. Apply a water-soluble lubricant to the patient's nares.		
4. Give the patient frequent and meticulous oral care with sponge swabs soaked in mouthwash and cool water.		
5. Caution the patient about lying on or kinking NG tubing if suction is being used.		
6. Check that all connections between the patient's NG tube and connected devices are secure.		
7. Keep an accurate I and O record for the patient.		
8. Check for correct placement of the patient's NG tube before administering medications, fluids, or tube feedings.		

CAUTION: Always irrigate after tube feedings or medications.

9. Aspirate the patient's stomach contents before each tube feeding. If more than 100-150cc of contents are aspirated, do not administer the scheduled tube feeding. Notify the doctor.		
10. Place the patient in a high Fowler's position when administering a tube feeding.		
11. Provide the patient with hard candy to suck on if ordered by doctor.		
12. Keep the patient's mucous membranes moist.		

	Yes	No
12. Provide the patient with throat lozenges for complaints of sore throat, if ordered by doctor.		
13. Assess the patient frequently for abdominal distention, presence of bowel sounds, and abdominal discomfort.		
14. Dispose of all waste according to biohazardous waste policy.		
Evaluation		
1. Check for correct placement of the NG tube.		
2. Assess patency of NG tube if it is connected to suction.		
3. Verify that the patient's nasal area and oral cavity are clean and in good condition.		
Documentation		
1. Type of oral care given to the patient.		
2. Patency of NG tube and connections.		
3. Correct placement of the patient's NG tube was verified.		
4. Patient's response to care of the NG tube.		

(End of Job Sheet)

SKILL TEST RECORD

EVALUATOR'S COMMENTS

PRODUCT EVALUATION

Evaluator note: Rate the student on the following criteria by circling the appropriate numbers. Each criterion must receive a rating of "3" or higher to demonstrate student mastery. (See Performance Evaluation Key.) A student who is unable to demonstrate mastery should review the material and submit another product for evaluation.

Criteria:

Checked doctor's order	4	3	2	1
Identified patient and explained procedure	4	3	2	1
Gathered all equipment and supplies	4	3	2	1
Washed hands and put on gloves	4	3	2	1
Oral care provided to patient	4	3	2	1
Verified patency of NG tube	4	3	2	1
Verified correct placement	4	3	2	1
Discarded equipment and supplies according to hospital policy	4	3	2	1
Correctly documented procedure	4	3	2	1

EVALUATOR'S COMMENTS

AVERAGE RATING

Evaluator note: To obtain an average rating for the Competency Profile, total the designated points in "Product Evaluation" and divide by the total number of criteria. Circle the rating on the "Performance Evaluation Key" below.

PERFORMANCE EVALUATION KEY

4 **Skilled** – Can perform job with no additional training
3 **Moderately Skilled** – Has performed job during training program; limited additional training may be required
2 **Limited Skill** – Has performed job during training program; additional training is required to develop skill
1 **Unskilled** – Is familiar with process, but is unable to perform job

JOB SHEET 12

PROVIDING CARE FOR THE POSTOPERATIVE PATIENT

VIII

Name ______________________ Score __________

OBJECTIVE 28

Insert a colon/rectal tube.

INTRODUCTION

Colon/rectal tubes are often necessary after surgery when a patient experiences extreme abdominal distention from gas or fluids. Colon/rectal tubes are normally inserted for a brief amount of time as ordered by the doctor to aid in removal of gas. Gas is extremely painful for the postoperative patient.

EQUIPMENT AND SUPPLIES

- Lubrication
- Bed protector
- Rectal tube ordered by doctor
- Adhesive tape
- Waterproof absorbent pad
- Gloves
- Washcloth and towel

PROCEDURE

Functional Reading Skills
- Interpret forms and records
- Follow written instructions

Functional Writing Skills
- Complete forms and records

Math Application Skills
- Use English and metric measures

Functional Math Skills
- Make measurements

Assessment and Analysis	Yes	No
1. Check the doctor's orders for the patient.	_____	_____
2. Identify the patient and explain the procedure for inserting a colon/rectal tube.	_____	_____
Planning		
1. Assemble all needed equipment and supplies.	_____	_____
2. Provide for the patient's privacy.	_____	_____
3. Position the patient in the left lateral position.	_____	_____
4. Put the bed protector beneath the patient.	_____	_____

Implementation Yes No

1. Wash hands. ____ ____
2. Put on gloves. ____ ____
3. Lubricate the tip of the rectal tube. ____ ____
4. Insert the rectal tube gently into the patient's rectum about two to four inches (adult), or one to two inches (child). ____ ____
5. Tape the rectal tube to the patient's buttocks. ____ ____
6. Place the open end of the rectal tube in a folded absorbent pad, or attach the open end to connecting tubing and a drainage receptacle. Follow hospital policy. ____ ____

CAUTION: Never leave the rectal tube in the patient's rectum longer than 20 minutes. The rectal tube may be reinserted every four hours as ordered by the doctor.

---

7. Position the call-light button so the patient can reach it easily. ____ ____
8. Check the patient frequently during the time the rectal tube is in place. ____ ____
9. Remove the rectal tube from the patient's rectum after 20 minutes. ____ ____
10. Dispose of all waste according to biohazardous waste policy. ____ ____
11. Provide for the patient's comfort. ____ ____

Evaluation

1. Verify that the patient expresses a relief ____ ____
2. Verify that the patient's abdomen appears less distended. ____ ____

General Science Skills
- Collect specimens

Life Science Skills
- Investigate/apply principles of anatomy/physiology
- Investigate health issues (medical, ergonomic, nutrition, mental health)

Interactive Communication Skills
- Communicate with clients/customers

General Relating Skills
- Interact with clients/customers/patients

Teamwork/Cooperative Skills
- Give/receive feedback

Job Acquisition/Development Skills
- Master specific job task/procedure
- Practice good work habits/attitudes
- Deal effectively with customers/clients

Documentation	Yes	No
1. Patient's relief from pain.	_____	_____
2. Decrease in distention of the patient's abdomen.	_____	_____
3. Bowel movement, amount, description.	_____	_____
4. Patient's response to colon/rectal tube procedure.	_____	_____

(End of Job Sheet)

SKILL TEST RECORD

EVALUATOR'S COMMENTS

____

____

____

PRODUCT EVALUATION

Evaluator note: Rate the student on the following criteria by circling the appropriate numbers. Each criterion must receive a rating of "3" or higher to demonstrate student mastery. (See Performance Evaluation Key.) A student who is unable to demonstrate mastery should review the material and submit another product for evaluation.

Criteria:				
Checked doctor's order	4	3	2	1
Identified patient and explained procedure	4	3	2	1
Gathered all equipment and supplies	4	3	2	1
Provided for patient's privacy	4	3	2	1
Placed patient in correct position	4	3	2	1
Washed hands and put on gloves	4	3	2	1
Placed colon tube correctly	4	3	2	1

Removed tube in 20 minutes	4	3	2	1
Discarded equipment and supplies according to hospital policy	4	3	2	1
Correctly documented procedure	4	3	2	1

EVALUATOR'S COMMENTS

AVERAGE RATING

Evaluator note: To obtain an average rating for the Competency Profile, total the designated points in "Product Evaluation" and divide by the total number of criteria. Circle the rating on the "Performance Evaluation Key" below.

PERFORMANCE EVALUATION KEY

4 **Skilled** — Can perform job with no additional training
3 **Moderately Skilled** — Has performed job during training program; limited additional training may be required
2 **Limited Skill** — Has performed job during training program; additional training is required to develop skill
1 **Unskilled** — Is familiar with process, but is unable to perform job

OBJECTIVE 1

Match terms associated with the care of the postoperative patient to their correct definitions. Write the correct letters in the blanks.

Part I

_____ 1. Abdominal contents emerging from an incision after surgery

_____ 2. A collapsed alveoli that could be caused by secretions in the airway

_____ 3. To be inflated with air or fluid

_____ 4. Gas in the digestive system

_____ 5. Undissolved material (usually a clot) in the bloodstream that travels through the circulatory system

_____ 6. Sterile, free from germs

_____ 7. Relating to the connection between the nose and the stomach

a. aseptic
b. atelectasis
c. conscious
d. distended
e. embolus
f. emesis
g. evisceration
h. flatus
i. nasogastric
j. postoperative
k. shock

May be photocopied for student use.

Part II

_____ 1. Being awake and aware of surroundings

_____ 2. Inadequate blood flow that cannot supply oxygen to tissues

_____ 3. Excessive internal or external bleeding

_____ 4. Inflammation or infection, usually of the lungs

_____ 5. Vomiting

_____ 6. After or following surgery

_____ 7. Drainage consisting of serum and pus

a. aseptic

b. conscious

c. distended

d. emesis

e. evisceration

f. flatus

g. hemorrhage

h. pneumonia

i. postoperative

j. seropurulent

k. shock

May be photocopied for student use.

OBJECTIVE 2 **Select appropriate assessments and care for postsurgical patients upon returning to their units.** Write the letter of the appropriate assessment in the blank provided.

_____ 1. Surgical floor nurses usually receive a report on the patient's condition immediately after surgery from

a. Surgeon
b. Anesthesiologist
c. Recovery room nurse
d. Intraoperative nurse

_____ 2. Commonly, if the patient's temperature remains elevated after 24 hours following surgery, the nurse could expect

a. Urinary tract infection
b. Pulmonary infection
c. Wound infection
d. A, B, or C

_____ 3. Which of the following items should be present in a post-surgical room when the patient arrives from the recovery room?

a. Bed made correctly for surgical patients
b. IV stand in room or attached to bed
c. Emesis basin and receptacle for NG tube drainage
d. A, B, and C

_____ 4. A weak, rapid pulse and decreased blood pressure may indicate

a. Hemorrhage or shock
b. Pain
c. Anxiety
d. Wound infection

_____ 5. Mr. Thompson has just returned to his post-surgical room after having a hernia repair. Which of the following is most important to Mr. Thompson's safety?

a. Keep side rails of bed raised
b. The telephone is within easy reach
c. The room temperature is at a comfortable level
d. A, B, and C

May be photocopied for student use.

_____ 6. Mrs. Wright, an 88-year-old patient, has just returned to her post-surgical room from the recovery room. Her IV fluids are DSW infused at 50cc/hr. What could happen if the patient's fluids were allowed to infuse at 150cc/hr?

a. Diabetes
b. Congestive heart failure
c. Dehydration
d. A, B, and C

OBJECTIVE 3

Match common postoperative complications with appropriate interventions. Write the correct letters in the blanks.

_____ 1. Incentive spirometer
_____ 2. Avoid massaging legs after surgery
_____ 3. Harris flush
_____ 4. NG tube placement
_____ 5. Position patient on her/his side
_____ 6. Straight catheter
_____ 7. Encourage fluids
_____ 8. Good oral care
_____ 9. Administer pain medication
_____ 10. Elevate foot of patient's bed
_____ 11. Use aseptic technique

a. abdominal distention
b. constipation
c. dry mouth
d. hiccoughs
e. nausea and vomiting
f. pain
g. respiratory complications
h. shock
i. thrombophlebitis
j. urinary retention
k. wound infection

May be photocopied for student use.

OBJECTIVE 4

Discuss factors affecting surgical wound healing. Write an essay discussing in detail three factors affecting surgical wound healing.

1. ____

2. ____

3. ____

May be photocopied for student use.

OBJECTIVE 5 **Select appropriate guidelines for surgical wound care.** Write the letter of the appropriate guideline for surgical wound care in the blank provided.

_____ 1. Which of the following statements are true concerning sterile dressing changes?

a. Sterile gloves should be worn when removing a patient's dressing.
b. Sterile gloves should be worn when placing a new dressing.
c. Sterile gloves should be worn when opening sterile packages.
d. A, B, and C

_____ 2. Which of the following statements are guidelines for surgical dressing changes?

a. Medicate the patient before the procedure.
b. A solvent may be applied to make the dressing more adhesive.
c. When cleaning an incision area, clean from the bottom to the top of the incision.
d. When removing adhesive tape, pull tape in the direction opposite the patient's hair growth.

_____ 3. When working with sterile equipment or gloves, it is important to remember that if sterility is questionable, the equipment is considered

a. Sterile
b. Clean
c. Contaminated
d. Usable

May be photocopied for student use.

_____ 4. When changing a dressing, which of the following is an appropriate technique?

a. Change dressing right after meals.
b. Observe patient for signs and symptoms of infection.
c. Wear sterile gloves when placing a sterile dressing.
d. When taping the dressing in place, tape the outside edges first, then the middle.

_____ 5. Which of the following purposes applies to sterile dressings?

a. Prevent staples catching on clothes
b. Absorption of drainage
c. Increase movement of the incision area
d. Prevent nurse from being exposed to infection

OBJECTIVE 6

Select the word or phrase that completes statements about the types of drains and drainage. Write the letter of the drain or drainage described in the blank provided.

_____ 1. Drainage from Jackson Pratt and Hemovac drains are established by

a. Positive pressure
b. Negative pressure
c. Equal pressure
d. Air pressure

_____ 2. Which term best describes a type of drain that is made of soft rubber and measures from 1/4 to 1 inch in diameter?

a. T-tube
b. Hemovac
c. Jackson Pratt
d. Penrose drain

May be photocopied for student use.

_____ 3. A mixture of serum and pus is

a. sanguineous
b. serosanguineous
c. seropurulent
d. bile

_____ 4. The drain described as a flat, rubber device with tiny holes that is connected to clear tubing is a

a. T-tube
b. Penrose drain
c. Jackson Pratt wound suction
d. Porta-Vac

OBJECTIVE 7

Select true statements about dehiscence and evisceration. Write an "X" in the blank before each true statement.

_____ 1. The correct term for excessive growth of an old scar is dehiscence.

_____ 2. Dehiscence is a separation of wound edges.

_____ 3. Upon signs of dehiscence, the nurse should encourage the patient to talk to provide a distraction from the pain.

_____ 4. Dehiscence sometimes leads to shock.

_____ 5. Coughing exercises are important to the recovery of patients with dehiscence.

_____ 6. Dehiscence may cause evisceration.

_____ 7. Assess evisceration by locating a section of the patient's spleen protruding from the incision area.

_____ 8. An evisceration should be covered with a clean, dry dressing.

May be photocopied for student use.

OBJECTIVE 8 **List the purposes of urinary catheterization.** List three purposes of urinary catheterization.

1. ______________________________

____

2. ______________________________

____

3. ______________________________

____

OBJECTIVE 9 **Select the word or phrase that completes statements about the care of urinary catheterization.** Write the correct letters in the blanks.

_____ 1. When caring for patients with urinary catheters, you should follow all of these rules *except*

a. Sterile technique should be used when inserting a catheter.
b. Patient's privacy should be respected.
c. The drainage bag should be kept at the same level as the catheter.
d. The drainage bag should not touch the floor.

_____ 2. When taping a catheter in place, you should do all of the following *except*

a. Tape the catheter tubing to the patient's thigh.
b. When taping the catheter in place, always place tension on the catheter.
c. Check the patient for allergies to adhesive tape.
d. Avoid placing tape completely around the patient's leg.

May be photocopied for student use.

_____ 3. To prevent infection from Foley catheters you should do all of the following *except*

a. Clean the aspiration port with saline solution before drawing a urine sample
b. Provide catheter care at least once every shift.
c. Wash hands when emptying the catheter drainage bag.
d. Medicate the patient with antibiotics.

OBJECTIVE 10

List purposes of nasogastric tubes. List three purposes of nasogastric tubes.

1. ______________________________

____

2. ______________________________

____

3. ______________________________

____

OBJECTIVE 11

Select true statements about the care of nasogastric tubes. Write the letter of the true statement about the care of nasogastric tubes in the blank provided.

_____ 1. Which of the following statements is/are true when caring for an NG tube while connected to suction?

a. Connections and suction settings should be checked frequently.
b. Patient's I and O should be measured.
c. Patients should not be allowed to lie on or kink tubing.
d. A, B, and C

May be photocopied for student use.

_____ 2. Which of the following statements is true concerning tube feedings?

- a. The placement of the NG tube should be checked once a week.
- b. The patient's residual stomach contents should be checked before starting feedings. Patient's feeding should be held if more than 100-150cc. Notify doctor.
- c. The feeding tube should be pinned to the patient's bedspread.
- d. The feeding fluid is to be administered only if it is ice cold.

_____ 3. Mrs. Baker has a feeding tube attached to her NG tube and is in the middle of a tube feeding when she complains of nausea. Shortly afterward, she vomits around the tube. The true statement describing the nurse's best intervention is

- a. Stop the tube feeding immediately.
- b. Slow the rate of the tube feeding.
- c. Increase the rate of the tube feeding to finish quickly.
- d. Discontinue the use of an NG tube.

OBJECTIVE 12

Choose indications of intermittent and constant suction. Place an "I" in the blanks next to statements describing intermittent suction. Place a "C" in the blanks next to statements describing constant suction.

_____ 1. Suction is used with double lumen tubes.

_____ 2. Suction is used with single lumen tubes.

_____ 3. Tube adheres to stomach lining during suction, but releases between suctions.

_____ 4. Tube frequently adheres to stomach lining during suction.

May be photocopied for student use.

OBJECTIVE 13

List the purposes of colon tubes. List three purposes of colon tubes.

1. ______________________________

____

2. ______________________________

____

3. ______________________________

____

OBJECTIVE 14

Select true statements about the care of colon tubes. Write an "X" in the blank before each true statment.

_____ 1. Get a baseline abdominal assessment.

_____ 2. Insert the colon tube approximately 12 inches on adult patients.

_____ 3. After completing the colon tube procedure, chart all results.

_____ 4. Position the patient in the prone position for insertion of the colon tube.

_____ 5. Provide for the patient's privacy.

_____ 6. Never wear gloves to perform the procedure.

_____ 7. Reinsert the colon tube in the patient every four hours, or when the doctor orders.

_____ 8. Leave the colon tube inserted in the patient for approximately 30 minutes.

May be photocopied for student use.

OBJECTIVE 15

Select true statements about the assessments requiring documentation during postoperative care. Write an "X" in the blank before each true statement.

_____ 1. Physical assessment should be documented in the respiratory, ciculatory, neurological, urological, and pain areas.

_____ 2. No assessment and documentation of the patient's ambulation is needed.

_____ 3. Vital signs should be assessed and documented.

_____ 4. Assessment and documentation of a patient's response to medication is not needed because the doctor can personally observe the response.

_____ 5. It is not important to document a patient's position changes.

_____ 6. It should be documented that a patient's condition changed and that the doctor was notified.

NOTE: Objectives 16-30 are evaluated on job sheets/assignment sheets in this unit. If you have not completed these components, see your instructor.

WRITTEN TEST ANSWERS

PROVIDING CARE FOR THE POSTOPERATIVE PATIENT

VIII

OBJECTIVE 1

Part I		Part II	
1.	g	1.	b
2.	b	2.	k
3.	d	3.	g
4.	h	4.	h
5.	e	5.	d
6.	a	6.	i
7.	i	7.	j

OBJECTIVE 2

1.	c
2.	b
3.	d
4.	a
5.	a
6.	b

OBJECTIVE 3

1.	g	6.	j
2.	i	7.	b
3.	d	8.	c
4.	a	9.	f
5.	e	10.	h
		11.	k

OBJECTIVE 4

The student's answer should include at least three of the following factors affecting surgical wound healing and a short discussion of the factors chosen.

Age—Children heal faster than elderly patients.

Nutrition—Vitamin C and protein increase wound healing.

Metabolism—Diabetics heal more slowly than other patients, and metabolic diseases affect healing time.

Medication—Steroid use interferes with healing. Other medications may affect healing time.

Edema—With edema, as blood takes longer to circulate through the body, healing time can be slowed.

Foreign bodies—If a foreign body remains in the wound after surgery or is introduced during wound care, the chances of a wound infection increase.

Radiation—Intense radiation exposure can increase healing time.

Poor dressing technique—A sterile dressing technique should be maintained to quicken healing time.

Inadequate drains—If the patient's drainage system does not function properly, it can cause a wound infection.

Wound stressors—Stressors, such as severe coughing or hiccoughing, can lead to dehiscence and possible evisceration.

Wound closure—If wound edges are not smooth, the wound will be slow in healing.

OBJECTIVE 5

1. b
2. a
3. c
4. c
5. b

OBJECTIVE 6

1. b
2. d
3. c
4. c

OBJECTIVE 7

2, 4, 6

OBJECTIVE 8

The student's answer should include three of the following purposes for urinary catheterization.

- To relieve acute or chronic urinary retention
- To empty bladder preoperatively
- To administer chemotherapy
- To permit drainage of urine in patients with neurological damage
- To maintain urinary tract over a long period of time

OBJECTIVE 9

1. c
2. b
3. a

OBJECTIVE 10

The student's answer should list at least three of the following purposes of nasogastric tubes.

- Decompression to remove fluids, gas, and stomach contents from patient's stomach
- Prevention of nausea and vomiting
- Diagnostic testing of the patient's stomach acidity
- Feeding the patient
- Administering medications
- Irrigating the patient with saline in case of gastric hemorrhage
- Emptying patient's stomach before emergency surgery when patient has not been NPO
- Evacuation of patient's stomach contents after ingestion of poison or following a drug overdose

OBJECTIVE 11

1. d
2. b
3. a

OBJECTIVE 12

1. c
2. i
3. i
4. c

OBJECTIVE 13

The student's answers should include at least three of the following purposes of colon/rectal tubes.

- To relieve the patient's discomfort from gas
- To relieve distension
- To open the patient's anal sphincter and facilitate passing gas
- To allow gas to escape without straining

OBJECTIVE 14	1, 3, 5, 7
OBJECTIVE 15	1, 3, 6